Oracle® Real-Time Collaboration

Administrator's Guide

10*g* Release 1 (10.1.2)

B25460-03

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Use this manual to deploy, configure, and administer Oracle Real-Time Collaboration.

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Oracle Real-Time Collaboration Administrator's Guide, 10*g* Release 1 (10.1.2)

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Preface

This preface describes the intended audience, content, documentation conventions and other features of the *Oracle Real-Time Collaboration Administrator's Guide*.

Intended Audience

This manual is intended for administrators who must install, configure, and monitor Oracle Real-Time Collaboration. The Administrator's Guide is not intended for end users who participate in Web conferences or instant messages.

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Related Documents

For more information, see the following manuals in the Oracle Collaboration Suite 10*g* Release 1 (10.1.2) documentation set:

- *Oracle Real-Time Collaboration Application Developer's Guide*

- *Oracle Collaboration Suite Administrator's Guide*

- *Oracle Collaboration Suite Deployment Guide*

- *Oracle Collaboration Suite Security Guide*

- *Oracle Collaboration Suite Installation Guide* for your platform

- *Oracle Collaboration Suite Release Notes* for your platform

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- *Oracle Internet Directory Administrator's Guide*

- *Oracle Enterprise Manager Concepts*

- *Oracle Enterprise Manager Administrator's Guide*

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Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
|	A vertical bar represents a choice of two options.
[ ]	Brackets enclose optional clauses from which you can choose one or none.
. . .	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted.

1

Introduction to Oracle Real-Time Collaboration Administration

Oracle Real-Time Collaboration is a secure, presence-aware, integrated platform designed to meet all the real-time collaboration needs of an enterprise. It lets individuals and groups meet, communicate, and collaborate in a seamless and unified manner. This chapter provides an overview of the Oracle Real-Time Collaboration product, its main features, overall architecture, and process flow. It contains the following sections:

- Oracle Real-Time Collaboration Features
- Oracle Real-Time Collaboration Sites
- Oracle Real-Time Collaboration Administration Features
- Oracle Real-Time Collaboration Architecture
- Oracle Real-Time Collaboration Hierarchy
- Oracle Real-Time Collaboration Client Connections and Run-Time Flows
- Process Interaction in Oracle Real-Time Collaboration
- Oracle Real-Time Collaboration Ports and Network Connectivity

Oracle Real-Time Collaboration Features

Oracle Real-Time Collaboration consists of client and server applications that let users publish their availability for collaborative tasks, create and participate in online conferences, and hold real-time chat sessions and chat conferences. From a user's perspective, the Oracle Real-Time Collaboration system has the following features:

- Oracle Real-Time Collaboration Web Client
- Oracle Web Conferencing Console
- Oracle Messenger Console
- Oracle Real-Time Collaboration Add-In for Microsoft Office
- End-User Documentation Portal

Each feature is described in the following sections.

Oracle Real-Time Collaboration Web Client

The Web Client is a series of pages displayed in a Web browser to let users do any of the following:

- **Schedule a conference:** Plan a conference in advance, send e-mail invitations, and designate materials to be reviewed before the conference.

- **Schedule an enrollable conference:** Schedule a conference that requires attendees to enroll, so you can capture attendee information and statistics for a Web seminar or sales presentation.

- **Schedule a conference that someone else will host:** Schedule a conference and allow someone else to host it, with all host privileges.

- **Create an instant conference:** Create a conference and host it right away.

- **Join a conference:** Easily join a conference through an e-mail invitation, a list of available conferences, or through the Join Conference area on the home page.

- **Manage materials:** Store materials such as documents, bookmarks, messages, and polls in your own repository, and use items from the repository during a conference.

- **Play back a conference:** Play back archived conferences any time.

- **Publish archives:** Publish the recorded conference and any information about the conference, such as the public chat transcript, list of conference attendees, and conference duration.

System administrators also use the Oracle Real-Time Collaboration Web Client to monitor system performance, create custom sites, and review reports about system performance. See "Oracle Real-Time Collaboration Administration Features" on page 1-6 for an overview of administration and management features. Figure 1–1 shows the system administrator's view of the Oracle Real-Time Collaboration Web Client.

Figure 1–1   Oracle Real-Time Collaboration Web Client: System Administrator's View
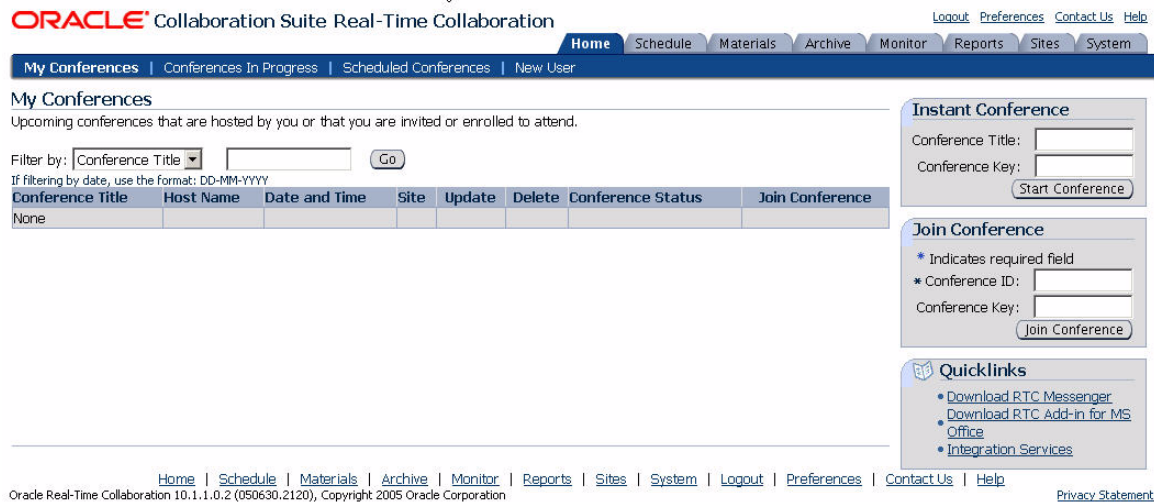
> **Note:**   In Figure 1–1, the **Monitor** and **Reports** tabs are available only to users assigned the business monitor or business administrator role. The **Sites** and **System** tabs are available only to users assigned the business administrator role. See "Oracle Real-Time Collaboration User Management and User Roles" on page 1-7 for more details about user privileges.

Oracle Web Conferencing Console

The Oracle Web Conferencing Console automatically downloads as users join or start a conference for the first time. Conference participants run the console on their desktops. Console features include:

- **Desktop sharing:** Lets the presenter share applications from a Windows-based computer with other attendees in real time. Options include sharing any region or multiple regions, any application including a Web browser, or the entire desktop. Web browsing includes filling out Web forms with support for real-time individual character display, and navigation to Web pages by selecting user-defined bookmarks.

- **Document presentation:** Lets conference hosts and attendees select and display documents from a personal materials repository. Presentation of the following formats is supported: Microsoft Word, Excel, PowerPoint, HTML, ASCII text, and images (.gif and .jpg).

- **Whiteboard:** Provides mark-up and drawing tools for the visual review and annotation of shared content, or as an aid in making presentations.

- **Voice streaming:** Provides live, listen-only streaming of voice from any telephone or teleconference system through the Oracle Web Conferencing Console, or live streaming of voice using each attendee's PC microphone and speakers, allowing different presenters to "pass the microphone" during a conference.

- **Polling:** Allows hosts to create instant polls or present polls they prepared earlier. Multiple polls can be active at the same time. Hosts can publish and display poll results to attendees in real time.

- **Chat:** Provides live chat with all attendees, a group of attendees, or with just the conference host. Users can predefine messages for use during chat.

- **Shared control:** Lets hosts share control of the conference with attendees. (The conference host always has ultimate control.)

- **Designated control**: Allows the person who schedules the conference to let someone else host the conference, with all appropriate host privileges.

- **Conference recording**: Enables recording of voice synchronized with any on-screen data collaboration for on-demand playback of the conference.

Figure 1–2 shows the Oracle Web Conferencing console.

Figure 1–2   Oracle Web Conferencing Console
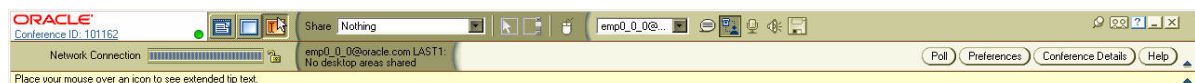
Oracle Messenger Console

Users download a native Windows client to participate in individual and group chat sessions with Oracle Messenger. This presence and messaging system is built on the industry-standard XMPP[1] protocol. Users can:

- **Chat with others**: Send and receive chat messages with other users.

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[1] Oracle's implementation is largely XMPP 1.0 compliant, except that TLS and SASL are not supported for secure connections. Third-party XMPP clients must use "old" SSL for secure connections to the Oracle Presence Server.

- **Hold chat conferences**: Chat with multiple colleagues in a chat conferencing window.

- **Hold multiple chat sessions or chat conferences**: Switch between multiple chat sessions with individuals or between multiple chat conferences.

- **Start a Web conference from chat**: Start an instant Web conference from the Oracle Messenger console or directly from a chat session or chat conference.

- **Set status indicators**: Set a message showing current availability for chat.

- **Exchange files while chatting**: Send and receive files during chat sessions. (For security reasons, this feature is available only within a company Intranet.)

- **Hold secure voice chat sessions**: Send and receive full-duplex voice chat messages with another Oracle Messenger user, within a company intranet, or over a virtual private network (VPN). If users are securely connected to Oracle Messenger, then all voice chat sessions are secure.

- **Log chat sessions**: Log and view past chat sessions.

- **Use chat community groups**: Use community groups reflecting the company's reporting structure.

- **Conduct secure chats**: Chat securely using Secure Sockets Layer (SSL) connections. Unlike other instant messaging programs, all Oracle Messenger instant messages and chat conferences are secure.

- **Broadcast messages**: Broadcast chat messages to multiple users or community groups.

- **Manage contact lists**: Add and remove contacts from a list, group colleagues, and conveniently check how many contacts in a large contact list are currently on line.

- **Interact with group presence**: Interact with a group of users created by the administrator for a specific task, such as customer support or sales. Group presence lets sales or customer support teams queue individual chat messages from users and allow available team members to respond in real time. See "Managing Groups for Group Presence" on page 4-18 for details.

Figure 1–3 shows the Oracle Messenger console.

Figure 1–3   Oracle Messenger Console

Oracle Real-Time Collaboration Add-In for Microsoft Office

The Oracle Real-Time Collaboration Add-In for Microsoft Office provides a convenient way to schedule web conferences, start instant conferences, or chat with other Oracle Messenger users from within Microsoft Office applications such as Excel, Outlook, PowerPoint, or Word. Registered users can download the add-in client from the Oracle Real-Time Collaboration Web Client.

The Oracle Real-Time Collaboration Add-In for Microsoft Office lets users do any of the following from within an Office application:

- Start an instant web conference and host it right away

- Schedule a web conference from Outlook

- Join a web conference from Outlook

- Update or delete a web conference they scheduled

- Start a text chat using Oracle Messenger (if they are signed in to Oracle Messenger)

- View Oracle Messenger contacts

- View Web conference archives

- Specify default settings for Web conferences they host

Figure 1–4 shows the Oracle Real-Time Collaboration Add-In for Microsoft Office as it appears in a Microsoft Office application.

Figure 1–4   Oracle Real-Time Collaboration Add-In for Microsoft Office
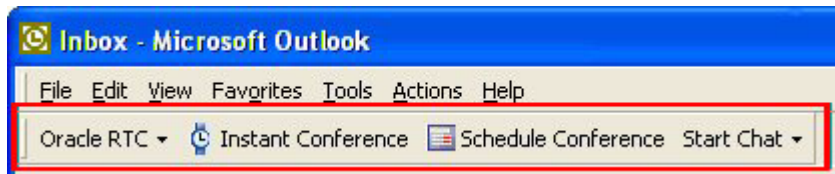
> **Note:**   If you integrate Oracle Calendar with Outlook, you should not use the Oracle Real-Time Collaboration Add-In for Microsoft Office to schedule web conferences.

End-User Documentation Portal

Information about Oracle Real-Time Collaboration features can be found in the End-User Documentation Portal. The End-User Documentation Portal is a set of customizable HTML pages that provide an overview of Oracle Collaboration Suite features, including Oracle Real-Time Collaboration, as well as information about how to download, install, and configure the end-user components. The End-User Documentation Portal also includes links to the FAQ & Troubleshooting site on the Oracle Technology Network (OTN) as well as to Oracle Collaboration Suite end-user tutorials.

Administrators can easily host the End-User Documentation Portal. The default content can be customized, additional content can be added, and administrators can choose which content they want to show or hide.

The End-User Documentation Portal is included with the Oracle Collaboration Suite installation CD as a ZIP file. For End-User Documentation Portal installation instructions, see the *Oracle Collaboration Suite Installation Guide* for your platform. For information about deploying the End-User Documentation Portal, see "Managing the End-User Documentation Portal" in Chapter 5 of the *Oracle Collaboration Suite Administrator's Guide*.

Oracle Real-Time Collaboration Sites

Oracle Real-Time Collaboration lets administrators create individual **site**s for different lines of business (for example, sales and support) and customize system, application, and conference level properties for those sites. Many of the features previously described for Web conferencing or messaging can be customized for these sites. Users assigned the businessadmin role as described in "Oracle Real-Time Collaboration User Management and User Roles" on page 1-7 can configure sites with the **rtcctl** utility and use the **Sites** tab to monitor sites. Users can also be assigned specific administrative or end-user privileges for a particular site. See Chapter 8 for details about creating and using sites.

Oracle Real-Time Collaboration Administration Features

One or more users must be provisioned as an administrative user (businessadmin) before any users can perform system administration. This section covers the following topics:

- Oracle Real-Time Collaboration User Management and User Roles
- Oracle Real-Time Collaboration Administrative Tools

Oracle Real-Time Collaboration User Management and User Roles

The Oracle Real-Time Collaboration system uses the Oracle Internet Directory to manage user data and the Oracle Internet Directory store, which uses LDAP (Lightweight Directory Access Protocol), to authenticate users. The Oracle Internet Directory host is specified at installation. Users of this Oracle Internet Directory must be provisioned to use Oracle Real-Time Collaboration. See the *Oracle Collaboration Suite Administrator's Guide* for information on provisioning users.

Users in the Oracle Internet Directory can be managed using the `oiddas` interface. This is typically available at `http://<ldaphostname>:7777/oiddas`. A user with the Oracle Internet Directory administrator account, typically *orcladmin*, can create, update, and delete users. See *Oracle Internet Directory Administrator's Guide* for details about Oracle Internet Directory.

In addition to basic provisioning, which lets users schedule and hold conferences, send and receive instant messages, view and publish presence, or manage conference and message materials and archives, some Oracle Real-Time Collaboration users can be assigned roles to let them use administrative features. An administrator uses the `rtcctl modifyRole` command to assign roles to Oracle Real-Time Collaboration users (see "Setting User Roles" on page 4-15 for more details). There are three roles, described in the following sections.

Note that each of the following roles can only be assigned to a **registered user**, that is, a user provisioned in the Oracle Internet Directory to use the Oracle Real-Time Collaboration system.

Users who are not provisioned in the Oracle Internet Directory can be invited to conferences. Administrators can prevent such **nonregistered user**s from accessing any part of the Oracle Real-Time Collaboration system using the GuestUserAccessEnabled property, as described in "Preventing Guest User Access" on page 3-19.

End User Role

The end user role, *enduser*, is the default role given to any user in the Oracle Internet Directory store. This role is intended for all regular users of Oracle Real-Time Collaboration.

Business Monitor Role

The business monitor role, *businessmonitor*, is assigned to users who need to monitor the system and view usage, feedback, quality of service, and other reports run on the system. Users with this role have access to the **Monitor** and **Reports** tabs in the Oracle Real-Time Collaboration Web Client, as well as end-user tabs.

Business Administrator Role

The business administrator role, *businessadmin*, is assigned to users who administer the Oracle Real-Time Collaboration deployment. This includes users who are responsible for supporting the end-users. Users with this role have access to the **Site** and **System** tabs in the Oracle Real-Time Collaboration Web Client, as well as all other tabs. You must assign at least one user the businessadmin role for an Oracle Real-Time Collaboration system.

Site Roles

Administrators can customize a single Oracle Real-Time Collaboration deployment for several different lines of business; each such custom presentation of Oracle Real-Time Collaboration is called a **site**. Each of the roles described previously (enduser, business

monitor, and business administrator) can be assigned to a user for a particular site. For more about sites, see Chapter 8.

Oracle Real-Time Collaboration Security Features

The Oracle Real-Time Collaboration system includes a number of features to provide security for your conference and messaging data, to provide secure access to your servers, and to let you manage users and monitor usage. This section provides a brief overview of the features; for more details, see "Securing Oracle Real-Time Collaboration" in Chapter 2 of the *Oracle Collaboration Suite Security Guide*.

- The Oracle Real-Time Collaboration system provides secure access for clients from within the intranet, from the open Internet, across transparent proxies, and from behind a firewall. See "Oracle Real-Time Collaboration Client Connection Details" on page 1-18 for details.

- An administrator can set an entire Oracle Real-Time Collaboration deployment, or just a Oracle Real-Time Collaboration site, to use Secure Sockets Layer (SSL) encryption connections during Web conferences or when sending instant messages. See "Configuring SSL Security" on page 3-15 for details.

- An administrator can choose to prevent any user not authenticated in the Oracle Internet Directory from accessing Oracle Real-Time Collaboration features. See "Preventing Guest User Access" on page 3-19 for details.

- An administrator can control what programmatic access can be made to the Oracle Real-Time Collaboration system using Integration Services, by enabling or disabling various services. See "Enabling Integration Services" on page 3-21 and "Integrating Applications with a Site" on page 8-2 for details.

- Administrators can set properties to control the Oracle Real-Time Collaboration features available to users of a system or site. See "Configuring the Oracle Real-Time Collaboration Web Client Pages" on page 3-27 and "Configuring Web Conferences" on page 3-36 for details.

- Individual Web conferences can be set to prevent access to unauthenticated users, and to control access to only those registered users who have been specifically invited. See the online Help for the **Schedule** tab.

- Oracle Real-Time Collaboration conference and message archives are available only to the users who participated in the meeting or message; a meeting host can further control access to meeting archives and prevent even attendees from seeing information. Administrators do not have special privileges to view archive details. See Chapter 7 for details.

- A Security report is available from the **Reports** tab, to let administrators identify how many security features are being used to protect conferences on the system, and to determine whether there have been suspicious numbers of failed attempts to join conferences. See "Oracle Real-Time Collaboration Security Report" on page 6-5 for details.

Oracle Real-Time Collaboration Administrative Tools

Business monitors and business administrators can use the following tools to manage the Oracle Real-Time Collaboration system:

- The rtcctl utility
- Oracle Enterprise Manager Grid Control

- Oracle Enterprise Manager Application Server Control for Oracle Collaboration Suite (OCS Control)

- Oracle Real-Time Collaboration monitoring interfaces to non-Oracle applications (servlets)

- Oracle Real-Time Collaboration administrative Web pages

Table 1–1 compares the tasks that can be accomplished with different Oracle Real-Time Collaboration administrative tools.

Table 1–1   Oracle Real-Time Collaboration Administrative Tools and Their Functions

Tasks	rtcctl	Grid Control	OCS Control	Monitoring Servlets	Oracle Real-Time Collaboration Web Client
Configure Real-Time Collaboration	Yes	No	Yes	No	Yes (user and site preferences only)
Monitor current processes	Yes	Yes	Yes	Yes	Yes
Monitor system alerts	Yes	Yes	No	No	Yes
Run diagnostics	Yes	No	No	Yes	No
Start and stop components	Yes	No	Yes	No	No
Troubleshoot the system	Yes	No	No	Yes	Yes
View diagnostics	Yes	Yes	No	No	Yes
View historical data	No	Yes	No	No	Yes
View quality of service reports	No	No	No	No	Yes
View service availability, uptime reports	No	Yes	No	Yes	Yes

rtcctl Utility

The rtcctl utility provides a command-line interface for administering and configuring the Oracle Real-Time Collaboration system. The utility lets administrators:

- Start, stop, or restart Real-Time Collaboration instances

- Configure system attributes, such as features available in conferences

- Monitor the system

- Run diagnostics on the system

- Troubleshoot system issues

See Chapter 4 for more details about this utility.

Oracle Enterprise Manager Grid Control

Oracle Enterprise Manager Grid Control is used to manage the Oracle components on which Oracle Real-Time Collaboration depends. Grid Control can also be used to see various metrics about the Oracle Real-Time Collaboration system, such as conference server usage, total memory used by Web conferencing, number of users using messaging, total CPU usage by Oracle Real-Time Collaboration processes, and so forth. See *Oracle Enterprise Manager Configuration for Oracle Collaboration Suite* for more information.

Oracle Enterprise Manager Application Server Control for Oracle Collaboration Suite

The Oracle Enterprise Manager Application Server Control for Oracle Collaboration Suite provides basic instance management operations, such as starting and shutting down an instance, configuring a Oracle Real-Time Collaboration component, and viewing system statistics such as system up time, CPU usage, and memory usage. See *Oracle Enterprise Manager Administrator's Guide* for more information.

Oracle Real-Time Collaboration Monitoring Interfaces (Servlets)

Real-Time Collaboration Monitoring Interfaces are available to plug in to any external management framework. With the interfaces, you can run service availability tests and get real-time monitoring data that can be collected periodically and used for historical analysis to tune the system. See Chapter 5 for more details about these interfaces.

Oracle Real-Time Collaboration Administrative Web Pages

Oracle Real-Time Collaboration lets administrators monitor system usage and manage business-related activities using 4 administrative tabs available from the Oracle Real-Time Collaboration Web Client pages. These tabs are visible only to users with administrator privileges. See Figure 1–5 for a picture of the tabs.

A user with business monitor privileges can use the 4 end-user tabs and the following 2 tabs.

- **Monitor tab:** Lets administrators view the processes of currently running conferences, including conference details, diagnostics, and information about conference attendees. Administrators can even end server processes from this area. See Chapter 5 for more details

- **Reports tab:** Displays historical information about each conference run on the system, equivalent to the Monitor real-time data. Additional reports provide details about Web conferencing and messaging system usage, rollup of conference host feedback about the system, and quality of service reports that show key performance metrics and information about 'incidents' (failures) of Real-Time Collaboration tasks. See Chapter 6 for more details.

A user with business administrator privileges can use the end-user tabs, both of the business monitor tabs, and the following 2 tabs:

- **Sites tab:** Lets administrators customize a single Oracle Real-Time Collaboration deployment for several different lines of business. Each line of business can have its own appearance and its own customized integration with the Oracle Real-Time Collaboration system. Administrators must create sites in order to use the Oracle Real-Time Collaboration integration services APIs and Web services. See Chapter 8 for more details.

- **System tab:** Lets administrators record and view information about each host for this Oracle Real-Time Collaboration system, and monitor the activity of instances and components running within the Real-Time Collaboration system. Administrators can expand or contract hierarchical lists of instances and their components, and see additional details about current conference sessions, application sessions, and sites. They can also start or stop instances and components. See Chapter 6, "Historical and Statistical Reports for Oracle Real-Time Collaboration" for more details about the reports available from this tab

Figure 1–5 shows all of the Oracle Real-Time Collaboration Web Client tabs, for end users, business monitors, and business administrators.

Figure 1–5   Oracle Real-Time Collaboration Tabs and Administrator Levels
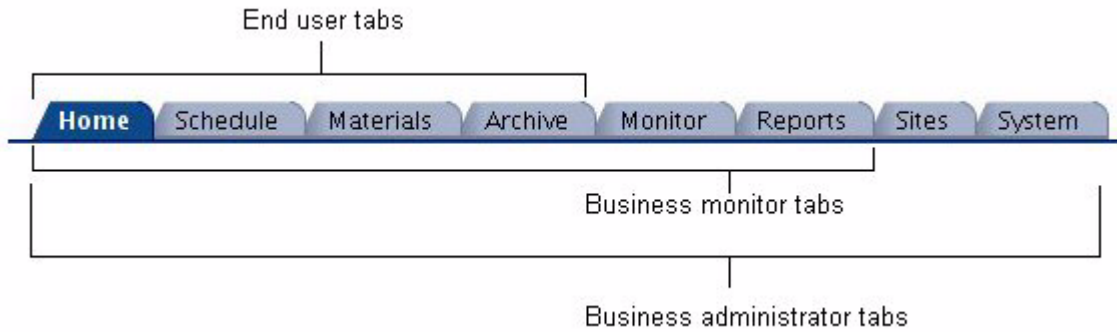
Oracle Real-Time Collaboration Architecture

Figure 1–6 shows the architecture of the Oracle Real-Time Collaboration system.

Figure 1–6   Oracle Real-Time Collaboration High-Level Architecture
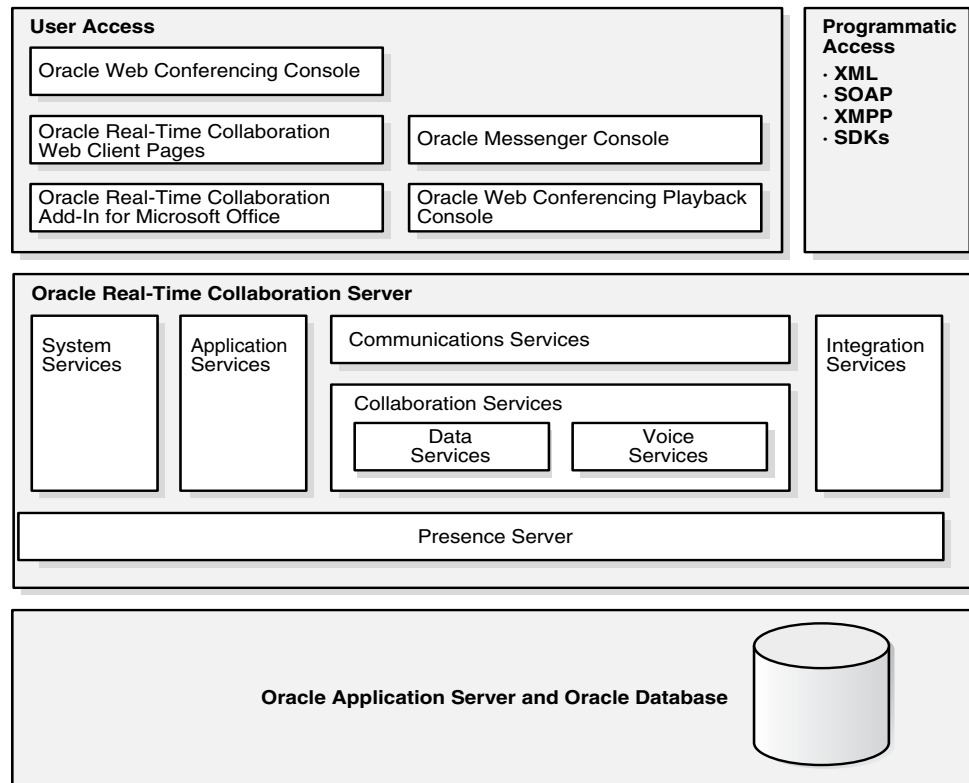
User and Programmatic Access

End users access the Oracle Real-Time Collaboration system using the Oracle Web Conferencing console, by playing back conferences in the playback console (a subset of the conferencing console), by using Oracle Messenger, or by using the Oracle Real-Time Collaboration Add-In for Microsoft Office. Users also interact with the system through the Web Client pages that let them schedule and join conferences, download clients, and view archived conferences and messages.

Programmers using the Oracle Real-Time Collaboration Integration Services can connect to the system using a number of different Web services and software development kits (SDKs). See *Oracle Real-Time Collaboration Application Developer's Guide* for details about all programmatic access methods.

Oracle Real-Time Collaboration Server

The Oracle Real-Time Collaboration communications layer responds to both user and programmatic requests to the system, and allows connections to the Data Services that control sharing of Web conferencing screen data and chat text data, and the Voice Services that handle streaming voice data within conferences or voice chat sessions.

Additional services include:

- System Services that provide system management through properties, statistics reporting, and process monitoring.

- Application Services that provide the scheduling and reporting features of the Web Client pages.

- Integration Services that can be used to tightly integrate any application to the Oracle Real-Time Collaboration functions. For example, using Integration Services, multiple users can interact with a group of contacts.

Underneath all of these services, the Oracle Real-Time Collaboration Presence Server supports the declaration and detection of individual and group presence (availability for chat and other collaboration tasks).

See **Oracle Real-Time Collaboration Server** in the Glossary for definitions of these services.

Oracle Real-Time Collaboration Repository

The Oracle Real-Time Collaboration repository consists of database schemas residing in an Oracle Collaboration Suite 10*g* Database. There are 4 schema accounts for Oracle Real-Time Collaboration:

- **RTC:** Contains all the database tables, views, indexes, triggers, sequences, stored procedures and packages.

- **RTC_REP:** Contains all the database objects that deal with transient and reporting data.

- **RTC_APP:** Contains the appropriate synonyms pointing to tables, views, and sequences in the rtc and rtc_rep accounts. This account has appropriate privileges to modify and select data from the tables.

- **RTC_IM:** Contains all the database objects for Oracle Messenger, including presence, statistics, messages, chat rooms, and so forth.

The schemas contain the following data:

- **System map:** Configuration information for all the instances and components in the system.

- **User roles:** Roles assigned to users setting system privileges. The user authentication information itself is stored in Oracle Internet Directory.

- **Conference and chat information:** Scheduled conferences, conference archives, chat archives, user documents loaded for use during a conference.

- Data for internal use by Oracle Real-Time Collaboration, such as application menu definitions.

See Appendix D for more details about the database accounts and tablespaces.

Oracle Real-Time Collaboration Components and Processes

The Oracle Real-Time Collaboration system consists of a number of different components. Each component is a set of processes that perform an identical function. Some components are only a single process, others can consist of multiple processes. Each component has a component type and component name, which can be used when configuring the system using the rtcctl utility (see Chapter 4). You can use the `rtcctl listComponents` command to see a list of components.

Table 1–2 shows all of the components, their component names and types, and the number of processes that can be run.

Table 1–2   Oracle Real-Time Collaboration Components

Full Component Name	Component Type	Component Name for rtcctl	Number of Processes
Client Connection Manager	connmgr	rtc-connmgr	1 or more
Document Conversion Server	docconv	rtc-docconv	1
Multiplexer	mx	rtc-mx	1 or more
OC4J_imeeting; J2EE Application	oc4j	oc4j_imeeting	1 or more
Oracle Presence Server	imrtr	rtc-imrtr	1
Oracle Web Conferencing Server	confsvr	rtc-confsvr	1 or more
Process Manager	rtcpm	rtcpm	1
Redirector	rdtr	rtc-rdtr	1
Voice Conversion Server	voiceconv	rtc-voiceconv	1
Voice Proxy Server	voiceproxy	rtc-voiceproxy	1

All but two of the components listed in the table are considered **core components** of Oracle Real-Time Collaboration. The Voice Conversion Server and Document Conversion Server are additional optional components used to support streaming voice data over PSTN in conferences, playback of recorded conferences, and conversion of documents in the Oracle Real-Time Collaboration materials repository. Figure 1–7 shows how components in the Oracle Real-Time Collaboration system interact with each other.

Figure 1–7   Oracle Real-Time Collaboration Interactions
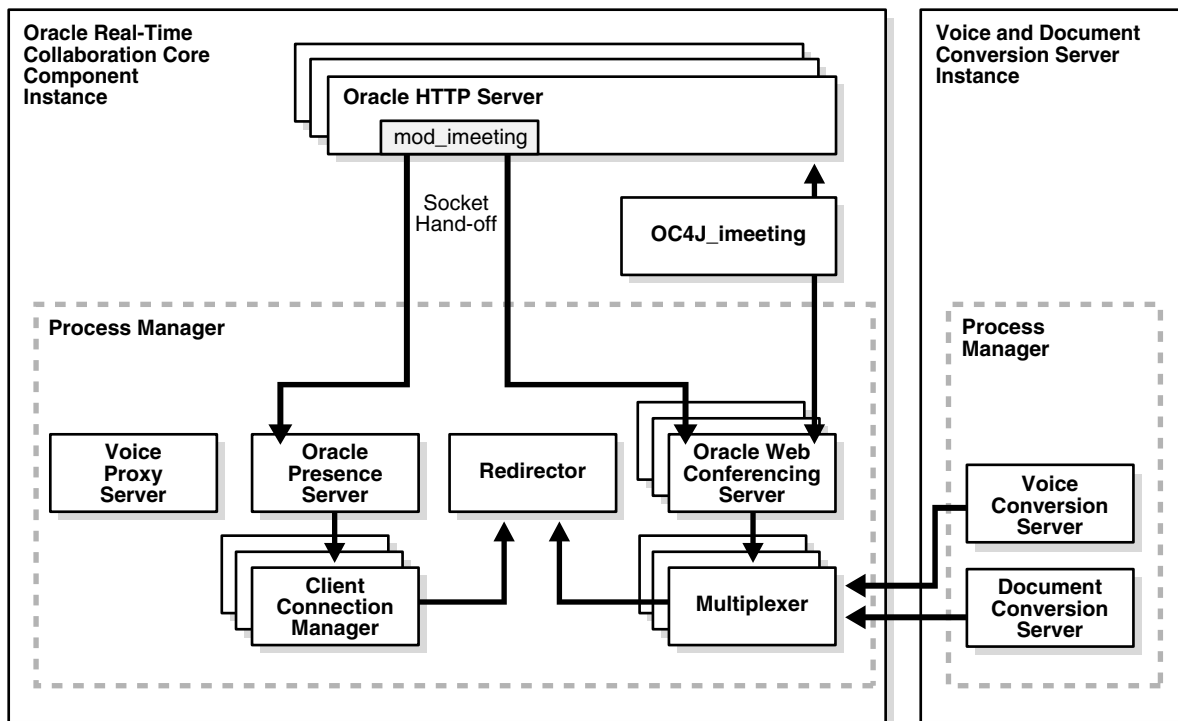
The following sections describe each Oracle Real-Time Collaboration component and its role in more detail.

Oracle HTTP Server and mod_imeeting

The Oracle HTTP Server is used as the only listening point for end-user connection requests over the Internet to the Oracle Real-Time Collaboration system. The mod_imeeting plug-in helps hand off the Oracle HTTP Server requests to the Oracle Real-Time Collaboration components. See "Oracle Real-Time Collaboration Client Connection Details" on page 1-18 for more information about how the Oracle HTTP Server and **mod_imeeting** plug-in interact.

Redirector

The Redirector redirects accepted connections to the appropriate Oracle Real-Time Collaboration communication processes: the Multiplexer for Web conferences or the Client Connection Manager for chat sessions. The Redirector also load balances between all requests, sending the connections to whichever multiplexer or connection manager is available as appropriate.

OC4J_imeeting

OC4J_imeeting is the Oracle Real-Time Collaboration J2EE Application running in Oracle10*g*AS Containers for J2EE. It does the following:

- Provides the Web-based user interface to Oracle Real-Time Collaboration for end users (the Web Client pages)

- Provides integration with external applications such as Oracle Calendar

- Interfaces with Oracle Internet Directory for user management

Multiplexer

The Multiplexer component acts as a communications hub between Oracle Web Conferencing console clients (end users participating in a conference) and Oracle Web Conferencing Servers. It does the following:

- Accepts inbound connections from Oracle Web Conferencing console clients and Oracle Web Conferencing Servers.

- Routes data traffic between all clients and all Oracle Web Conferencing Servers on a system.

Oracle Web Conferencing Server

The Oracle Web Conferencing Server component provides the services for a Web conference. It does the following:

- Manages all the conference attendees' states and their permissions within the conference.

- Intelligently distributes real-time data for all the collaboration modes that are active during the conference.

- Provides services for the recording and archiving of the conference.

Client Connection Manager

The Client Connection Manager handles all connections between Oracle Messenger clients (end users participating in chat sessions) and the Oracle Presence Server.

Oracle Presence Server

The Oracle Presence Server provides the services required for instant messaging, chat conferences, and publishing the presence of Oracle Messenger users. There can be more than one Oracle Presence Server in an Oracle Real-Time Collaboration deployment, but only one server runs at a time. If the first goes down, a special high-availability process associated with each server will start the next. See "High-Availability Process Manager for Oracle Presence Server Process" on page 5-2 for details.

Process Manager

The Process Manager watches all the other Oracle Real-Time Collaboration processes (except for OC4J_imeeting processes), and provides high availability by restarting processes if they are down. This process itself is monitored by the Oracle Process Management and Notification system.

Voice Conversion Server

The Voice Conversion Server is used to support streaming voice data during a Web conference and playback of recorded conferences. During a Web conference, it dials in to a voice conferencing system, captures the analog voice stream, digitizes it, and streams it to an Oracle Web Conferencing Server process through the multiplexer. In Figure 1–7, the Voice Conversion Server is shown residing on another physical computer than most other Oracle Real-Time Collaboration processes. The Voice Conversion Server must be installed on a computer running the Windows operating system, and has associated hardware requirements as mentioned in "About Document and Voice Conversion Servers" on page 2-12.

Document Conversion Server

The Document Conversion Server converts Microsoft Office documents to HTML for document presentation. The Oracle Real-Time Collaboration Web Client provides the

front end for a user to convert a document. Like the Voice Conversion Server, the Document Conversion Server must be installed on a computer running the Windows operating system.

Voice Proxy Server

The Voice Proxy Server handles real-time, two-way voice communications during voice chat sessions in Oracle Messenger. It interacts directly with the Oracle Messenger client, and provides STUN services for NAT traversal and proxying services for voice chat media sessions with the intranet.

Oracle Real-Time Collaboration Hierarchy

When you install Oracle Real-Time Collaboration, you can install the components described in "Oracle Real-Time Collaboration Components and Processes" on page 1-13 on one or more Applications tiers. As noted in that section, you can run one or multiple processes of some components. See "Increasing Component Processes and Connections" on page 3-13 for more details about increasing component processes.

Each group of Oracle Real-Time Collaboration components installed on a single Applications tier is an **instance**.

Figure 1–8 shows an example of the core components and processes that can be installed on an Oracle Real-Time Collaboration instance. Note that multiple processes are running for the Multiplexer, Client Connection Manager, and Oracle Web Conferencing Server components.

Figure 1–8   Oracle Real-Time Collaboration Instance
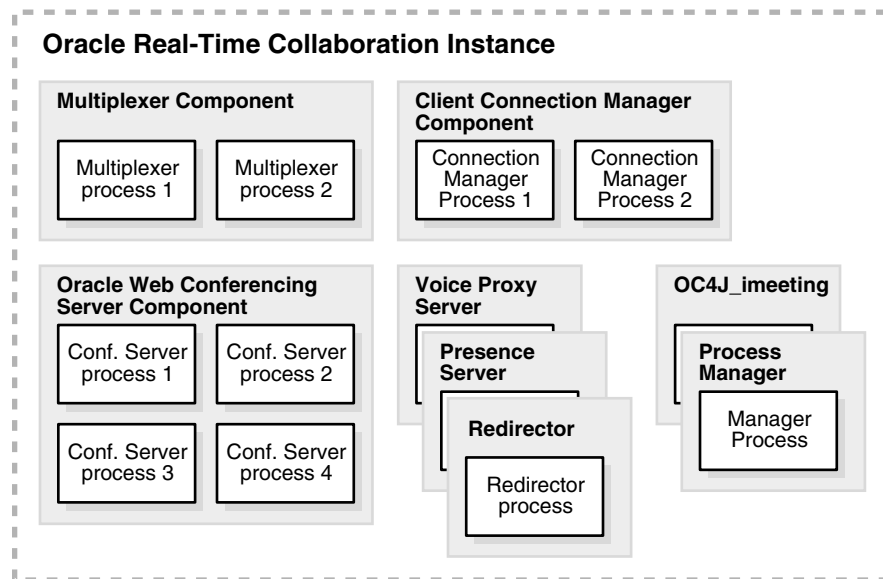
Because the Document and Voice Conversion Servers must be installed on a computer running the Windows operating system, an Oracle Real-Time Collaboration deployment will generally include at least two instances, one with the core components and one with Document and Voice Conversion Servers. You can choose to deploy Oracle Real-Time Collaboration without the Document and Voice Conversion Servers if you don't need the features they provide.

Instances can be grouped together into a **cluster**. Clusters are generally used to support multiple locations. However, a group of clusters can still share the same database.

The set of *all* instances that share the same Oracle Real-Time Collaboration Repository is considered a single Oracle Real-Time Collaboration system. Because instances can be part of clusters, the Oracle Real-Time Collaboration system can be thought of as a set of all instances and (optionally) clusters. Figure 1–9 illustrates the nested nature of the Oracle Real-Time Collaboration hierarchy. This sample Oracle Real-Time Collaboration system includes two clusters. Each cluster includes two instances, each with their own components and processes. The system uses a single database. Note that there is only one instance with Voice and Document Conversions servers, which are shared by the whole system.

Figure 1–9   Oracle Real-Time Collaboration System
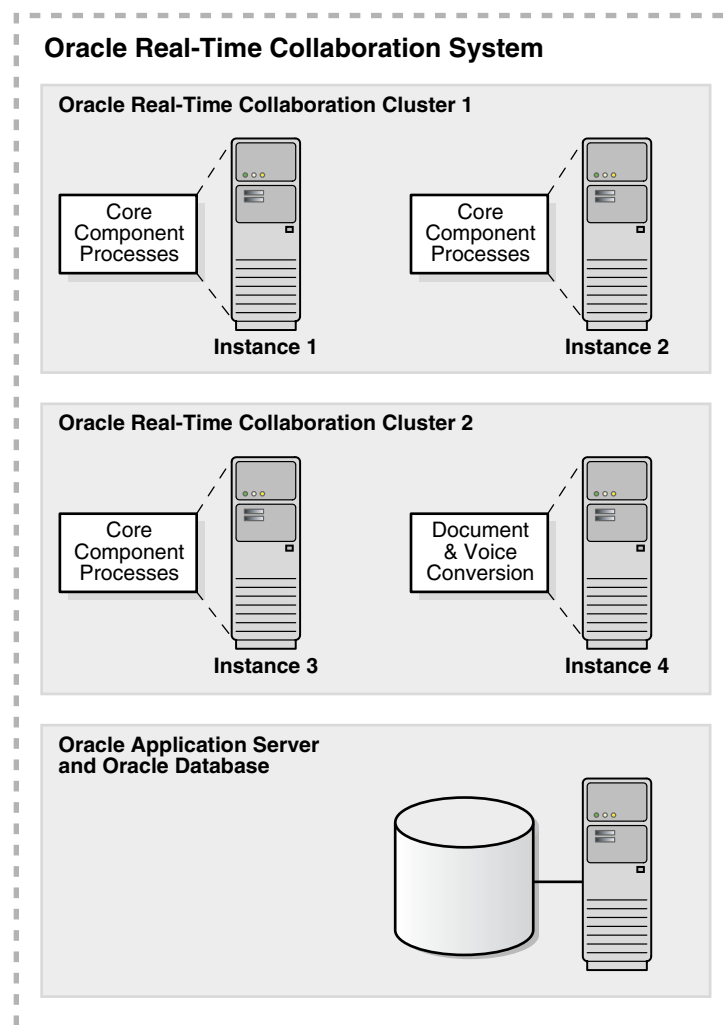
Oracle Real-Time Collaboration Client Connections and Run-Time Flows

The following sections provide more details about how users connect to the Oracle Real-Time Collaboration system, and describe the flow of events as users join a conference or send an instant message.

Oracle Real-Time Collaboration Client Connection Details

Figure 1–10 shows how users connect to either the Web Conference Server for a Web conference or to the Oracle Presence Server for instant messaging. All connections fall into one of three categories:

- Users connect directly to Oracle Real-Time Collaboration without traversing any firewall. Example: all users are in the corporate intranet.

- Users connect to Oracle Real-Time Collaboration from the Internet crossing a company firewall. Example: Oracle Real-Time Collaboration is deployed in a company demilitarized zone (DMZ), and users connect over the Internet.

- Users connect through the Internet from their own company's corporate intranet through their proxy.

Figure 1–10   Client Connections to Oracle Real-Time Collaboration
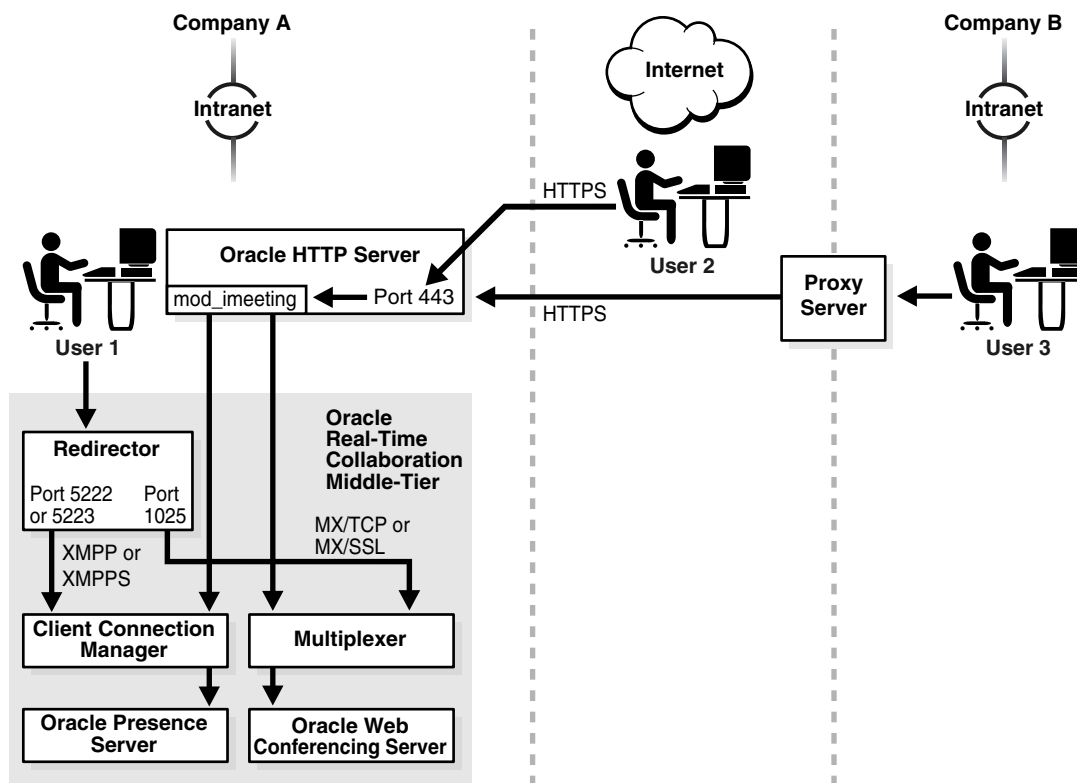
The Oracle Web Conferencing and Oracle Messenger console clients attempt to connect to the Oracle Real-Time Collaboration system using one of the following methods, attempting them in the following order until successful:

1. **Direct TCP/IP:** Clients within a corporate intranet connect directly to the RTC Redirector, which hands off connections to the Client Connection Manager (for instant messages) or Multiplexer (for Web conferences), using XMPP/XMPPS for messaging, or proprietary protocols (MX) with TCP/IP or SSL for Web Conferences. (See "Configuring Client Connections" on page 3-9 for details about the IMXMPPDirectConnEnabled property that allows direct access to XMPP/XMPPS.)

2. **HTTPS direct:** Clients in the open Internet or across transparent proxies connect using HTTPS. The mod_imeeting plug-in uses the Oracle HTTP Server as the

single listening point over port 443, then hands the socket off to the Connection Manager or Multiplexer, and the console connects directly to one of these.

3. **HTTPS tunnel:** Clients in a different intranet coming through their own internal proxy provide the console with proxy information from the browser settings. The console establishes a connection to the Oracle HTTP Server, which hands the connection off to the Connection Manager or Multiplexer over an HTTPS tunnel through the remote proxy. Again, the listening port is 443.

See "Oracle Real-Time Collaboration Ports and Network Connectivity" on page 1-24 for a list of all ports used to make Oracle Real-Time Collaboration connections.

Note that for scenarios 2 and 3 to succeed, port 443 must be open to the Internet. The next three sections provide more details about Internet access requirements and considerations.

- Requirements for Connections Over the Internet
- Allowing Direct Access to XMPPS Over the Internet
- Allowing Access to Third-Party Clients For Messaging Over the Internet

Requirements for Connections Over the Internet

Oracle Real-Time Collaboration connections do not work over reverse proxies. If you want to allow connections over the Internet to Oracle Real-Time Collaboration, the middle tier must have an Internet-routable address. You can either:

- Deploy the middle tier in your company's DMZ, with its IP address publicly routable, with ports 80 (for HTTP) and 443 (for HTTPS) accessible.
- Use a Network Address Translation (NAT) machine to map the internal IP address to an external IP address, with ports 80 (for HTTP) and 443 (for HTTPS) accessible.

See the *Oracle Collaboration Suite Deployment Guide* for more details about deploying Oracle Real-Time Collaboration.

Allowing Access to Third-Party Clients For Messaging Over the Internet

Third-party clients for instant messaging, such as Gaim, can connect only using the direct TCP/IP method, assuming the client's user is provisioned in the Oracle Internet Directory. If you want to allow third-party client access to instant messaging over the Internet, you must do one of the steps described in "Allowing Direct Access to XMPPS Over the Internet".

To ensure that all users access Oracle Real-Time Collaboration through secure connections, you must enable HTTPS connections for instant messages by setting the IMSSLRequiredForXMPP property to *true*. This requires all users to connect using HTTPS. See "Configuring SSL Security" on page 3-15 for more details about this property.

Allowing Direct Access to XMPPS Over the Internet

If you want to support direct connections to XMPPS over the Internet, you must do *one* of the following:

- Open your XMPPS port (typically 5223), on a machine with its IP address publicly routable.
- Use a Network Address Translation (NAT) machine to map the internal IP address to an external IP address, and map port 5223 to the externally accessible port 443.

Real-Time Collaboration Audio Services Connections

Oracle Real-Time Collaboration provides the following audio services:

- Streaming voice data from a PSTN source, such as an external phone conference vendor, to listen-only Oracle Web Conferencing clients over an IP network

- Voice over IP data from a PC microphone to listen-only Oracle Web Conferencing

- Full-duplex voice chat between two Oracle Web Conferencing attendees using PC speakers and microphones when there are only two attendees present

- Synchronous data and voice playback from a Web conference recording

- Full-duplex voice chat between two Oracle Messenger users, within a company intranet

The following sections describe how voice data is passed for these audio services.

Flow for Audio Data in Oracle Web Conferencing

Figure 1–11 show the voice data is passed between clients and the Oracle Web Conferencing Server during an audio Web conference.

For conferences that share data from the PC microphone and speakers, and conferences that share audio data from a PSTN network, clients receive the streaming data in GSM format, compressed to 13 kilobits for each second (Kb/second). In addition to the GSM stream, the Voice Conversion Server also sends the uncompressed G.711 stream (64 Kb/second) that the Oracle Web Conferencing server stores in the Oracle Real-Time Collaboration repository for recording and playback. For conferences using one-way PC voice streaming, only the GSM stream is sent if the conference is not being recorded. If the conference is being recorded, both the GSM and G.711 streams are sent to the server.

Two Oracle Web Conferencing users can engage in a full-duplex voice chat using PC speakers and microphones as long as they are the only two attendees present. A voice stream is sent from each client to the server, and the server sends the correct voice stream to the two attendees. This voice stream uses a variable bit-rate codec, which ranges from 5 Kb/second to 62 Kb/second. This full-duplex voice chat cannot be recorded.

For recorded conferences, the GSM stream is synchronized with other conference data (desktop sharing, whiteboard, polls, and chat messages) and stored in the repository. Clients access the conference recording through the Oracle Real-Time Collaboration Web Client pages. Users can play back the recording as a G.711 stream at 64 Kb/second, or download it for later playback. (The GSM stream is sent to clients during the conference, but is never used for playback.) The recording is in a proprietary format and must be played back by the Oracle Web Conferencing Playback Console.

The Voice Conversion Server is used only when hosts stream audio data from a PSTN line (for example, a phone-based voice conferencing service), rather than the PC microphone. The Voice Conversion Server has a digital T1 connection to the PSTN network (it does not have to be connected to a PBX). It uses specialized media processing hardware from Intel/Dialogic to interact with the PSTN network. It receives a PCM voice stream at 64 Kb/second, which is then compressed to GSM format at 13 Kb/second and distributed to the conference clients.

Figure 1–11   Flow for Oracle Web Conferencing Audio
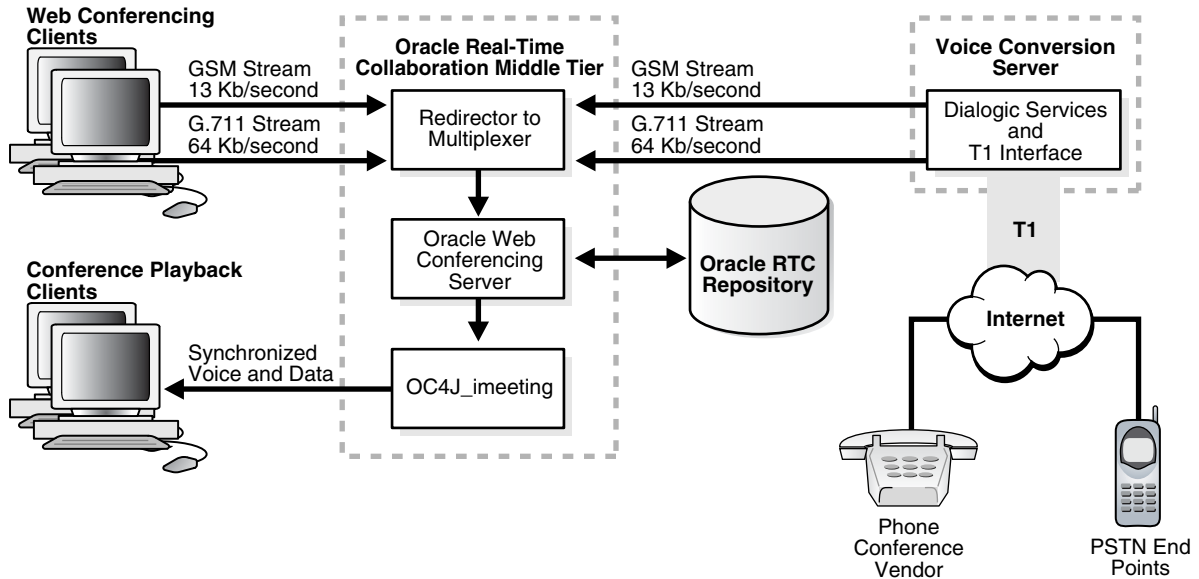
Audio Flows for Full-Duplex (P2P) Voice Chat in Oracle Messenger

Figure 1–12 shows how two Oracle Messenger clients communicate during a one-to-one voice chat. The Oracle Presence Server handles the initial connection for the chat, using XMPP or TINS over TCP. LDAP information needed to identify the clients is obtained from the Oracle Real-Time Collaboration repository. The voice connection uses RTP/UDP protocols, and is handled in one of two methods:

■   If possible, the clients communicate through peer-to-peer voice streaming

■   If peer-to-peer communications are not possible, the clients communicate through the Voice Proxy Server

Figure 1–12   Flow for Oracle Messenger Voice Chat
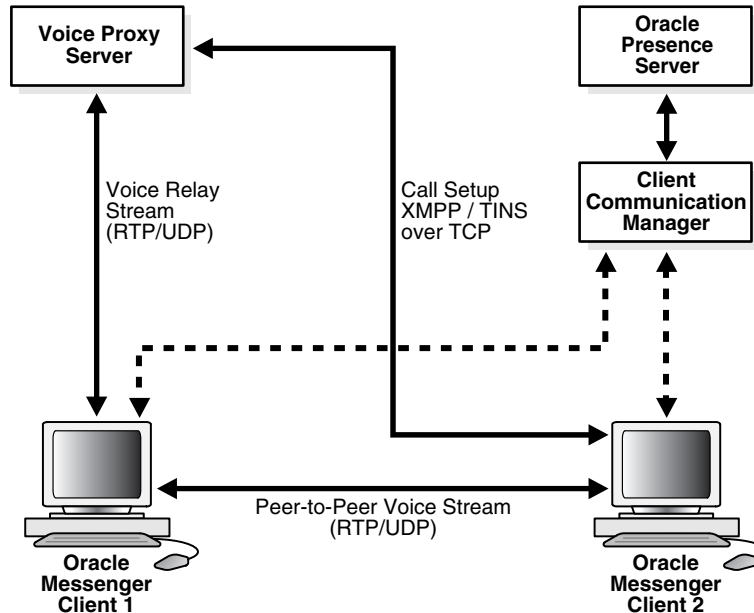
Join Conference Flow for Oracle Web Conferencing

When an attendee joins a conference through the Oracle Web Conferencing client, an e-mail invitation, or through an application that is integrated with Oracle Web Conferencing, the following events take place:

1. The application looks up the conference record from the database and retrieves the list of Oracle Web Conferencing Servers that can host the conference. The application authorizes the request based on the person joining and the attributes of the conference the person intends to join.

2. The application chooses an Oracle Web Conferencing Server process, starts the session, and records the association between the conference ID and the server process.

3. The list of client parameters for the Oracle Web Conferencing Console to connect is generated:

   - The OC4J_imeeting application returns the RTC Redirector host and port parameters for connecting to the multiplexer process.

   - HTTPS connection information is taken from the description that identifies which Oracle HTTP Server and mod_imeeting process can be used to redirect the connection (if not a direct TCP/IP connection).

   - An encrypted client authentication token is generated.

4. The application refreshes the Web browser window to display an Oracle Web Conferencing Console Installer with the client parameters.

5. The console installer performs compatibility checks. If compatibility checks are successful, it checks the version of the Oracle Web Conferencing Console available on the client system.

   If the console is not installed on the client system, or if the console version does not match the current one, the new console package is downloaded and installed.

6. The console installer starts the Oracle Web Conferencing Console with all parameters.

7. The console tries to establish connection to a multiplexer through the Redirector or mod_imeeting, using the algorithm described in detail in "Oracle Real-Time Collaboration Client Connection Details" on page 1-18. Then:

   - If all attempts fail, the client receives an error message.

   - If a connection is established, then the console creates a virtual channel through the multiplexer to the conference session and continues with the next steps.

8. The console sends an authorization token identifying the client to the server.

9. The Oracle Web Conferencing Server sends all conference state information (list of attendees, shared content, chat transcripts, and so on) to the console to initialize it.

10. The Oracle Web Conferencing Console opens and the conference begins.

Send Message Flow for Oracle Messenger

When a user who is connected to Oracle Messenger as described in "Oracle Real-Time Collaboration Client Connection Details" on page 1-18 sends an instant message using Oracle Messenger, the following events occur:

1. The client machine passes a message through the existing connection to the Oracle Presence Server.

2. The Presence Server determines whether the person to whom the message is addressed has a running messaging session.

   - If the second user has a running messaging session, the Presence Server sends the message through the existing connection to the second user's Oracle Messenger (or third-party messaging client).

   - If the second user does not have a running messaging session (the user is offline), the Presence Server sends an offline message.

     The offline message is either e-mailed to the second user (if the user set the "Enable offline email" option under **Email** in the **Options** dialog from the **Tools** command), or is sent to offline storage in the Oracle Real-Time Collaboration repository, where it is held until it can be resent when the user logs in again.

Process Interaction in Oracle Real-Time Collaboration

The following sections describe how the Oracle Real-Time Collaboration processes interact both within an instance and across instances.

Process Interaction Within an Instance

Figure 1–7 shows how processes interact within a single instance of Oracle Real-Time Collaboration core components. To summarize:

- OC4J_imeeting connects to any Multiplexer and to any Client Connection Manager in the cluster to which the instance belongs. OC4J_imeeting is initially connected to one of these processes when required, and from then on caches the connection.

- Each Oracle Web Conferencing Server process in an instance is always connected to each multiplexer in that instance.

- Each connection manager process is always connected to the Oracle Presence Server, no matter what instance it is running on. Only one Oracle Presence Server can be running at a time; if one goes down, another is started and all connection manager processes move to that one.

- The mod_imeeting process, when used for socket handoff, connects to each connection manager and multiplexer in the instance.

In addition, clients connect to the instance processes as follows:

- Each conference participant connects through the Oracle Web Conferencing Console to one of the multiplexer processes, either directly or through a socket handoff as described in "Oracle Real-Time Collaboration Client Connection Details" on page 1-18.

- Each message participant connects through the Oracle Messenger Console to one of the connection manager processes, either directly or through a socket hand-off as described in "Oracle Real-Time Collaboration Client Connection Details".

Process Interaction Across Instances

The Voice Conversion Server and Document Conversion Server processes in an instance connect to all the multiplexer processes in any other instance that they have

been configured to service. By default, The Voice and Document Conversion Server processes are configured to service all multiplexer processes. See "Configuring Clusters" on page 3-26 for details about how to configure Voice and Document Conversion Servers to support clusters of components in specific locations.

Only one Oracle Presence Server is running at any time. All other instances with Client Connection Manager processes connect to the instance with the running server.

Virtual Channel and Database Connections

Oracle Real-Time Collaboration components make both virtual channel connections between components and direct connections to the Oracle Real-Time Collaboration Repository (the database).

Virtual Channel Connections

All Oracle Web Conferencing processes connect to the Multiplexer, which acts as a communication hub. The following virtual channels are created:

- The Oracle Web Conferencing Console connects to the Oracle Web Conferencing Server process through the multiplexer during a conference.

- The OC4J_imeeting processes connect to the Document Conversion Server process through the multiplexer used for document conversions.

- Each Oracle Web Conferencing Server process connects to the Voice Conversion Server process through the multiplexer for voice streaming during a conference.

- All Oracle Messenger client processes connect to the Client Connection Manager, which passes connections to the Oracle Presence Server.

Direct Connections to the Database

- Each Oracle Web Conferencing Server process maintains a pool of connections to the Oracle Real-Time Collaboration Repository.

- Each OC4J_imeeting process maintains a pool of connections to the Oracle Real-Time Collaboration Repository.

- Each Document Conversion Server maintains a connection to the Oracle Real-Time Collaboration Repository.

- Each Oracle Real-Time Collaboration Process Manager maintains a connection to the Oracle Real-Time Collaboration Repository.

- The Oracle Presence Server maintains a connection to the Oracle Real-Time Collaboration Repository.

Oracle Real-Time Collaboration Ports and Network Connectivity

Table 1–3 contains port and network connectivity information for Oracle Real-Time Collaboration. Use this table to determine which ports should be open for connections between different Oracle Real-Time Collaboration components, and in which direction the connection should be available. The table also shows the Oracle Real-Time Collaboration properties that can be used to reset the port values; see Chapter 3, "Configuring Oracle Real-Time Collaboration" for more details about all properties listed.

Many port values are set during installation, so some of the defaults in Table 1–3 may not be the actual values for your system, depending on what port IDs are available during installation. You can use the Oracle Enterprise Manager to determine the

current settings for ports used by Oracle Real-Time Collaboration, or use the
getProperty command to view the values of any of the port properties listed in
Table 1–3. See "Setting and Displaying Properties" on page 4-9 for details about using
getProperty.

Table 1–3   External Ports and Network Connectivity

Component	Protocol	Port Number	No. of Ports	Required Accessibility	Optional Accessibility	Configuration Property
Oracle HTTP Server	HTTP	80	1	From all RTC clients; must be open for connections from outside the intranet.	Not Applicable.	ApacheWebPort
Oracle HTTP Server mod_imeeting	HTTPS	443	1	From all RTC clients; must be open for connections from outside the intranet.	Not Applicable.	ApacheWebSecurePort
Oracle HTTP Server mod_imeeting	HTTPS tunnel	443	1	From all RTC clients; must be open for connections from outside the intranet.	Not Applicable.	ApacheWebSecurePort
Redirector	Server Listening Point	Assigned at install	1 or more	From all Oracle Web Conferencing Servers on this Applications tier. From the Oracle Presence Server and Document and Voice Conversion Servers. Hands off the socket to the multiplexer or communication manager.	Use a firewall to close this port from outside.	RedirectorServerPort
Redirector	mx[1]	1025 Assigned at install	1 or more	From Oracle Web Conferencing Clients. There are as many ports as there are multiplexer processes. To increase processes, see "Increasing Component Processes and Connections" on page 3-13.	Not Applicable.	RedirectorMxPort
Redirector	XMPP	5222 Assigned at install	1	Not Applicable.	Oracle Presence Server and third-party messaging clients.	RedirectorXMPPPort

Table 1–3   (Cont.) External Ports and Network Connectivity

Component	Protocol	Port Number	No. of Ports	Required Accessibility	Optional Accessibility	Configuration Property
Redirector	Secure XMPP	5223 Assigned at install	1	Not Applicable	Oracle Presence Server and third-party messaging clients.	RedirectorXMPPSecure Port
Voice Conversion Server (voiced)	HTTP	2455 Assigned at install	1	From all systems with the Oracle Real-Time Collaboration Core Components that this Voice Conversion Server supports.	For remote status.	VoiceSrvHttpPort
Voice Proxy	UDP	3478 Assigned at install	1	Requires access from Oracle Messenger clients within the intranet (including VPN) for two way voice chat communication.	Not Applicable.	VoiceProxyListenPort

[1]   mx is an Oracle Real-Time Collaboration internal proprietary protocol.

For deployments that are accessible from the Internet, it is usually enough for Internet-facing or extranet-facing firewalls of the DMZ to have just the traditional ports (443 and 80) open. See "Oracle Real-Time Collaboration Client Connection Details" on page 1-18.

If you also want to provide access to third-party instant messaging clients (such as Gaim) through the Internet, the XMPP or XMPPS port should be open as well. Typically you would use the XMPPS port, 5223, for Secure Sockets-Layer connections.

2

Postinstallation Basics for Oracle Real-Time Collaboration

This chapter discusses postinstallation steps to configure commonly used options of your Oracle Real-Time Collaboration system. It also provides an overview of the ways in which you can stop and start Oracle Real-Time Collaboration components. This chapter provides a brief overview about the configuration tool used to install Oracle Real-Time Collaboration if it was not installed during original installation of Oracle Collaboration Suite; please see the *Oracle Collaboration Suite Installation Guide* for your operating system for all details about installation. This chapter contains the following sections:

- Postinstallation Configuration for Oracle Real-Time Collaboration

- Recommended Postinstallation Checks for Oracle Real-Time Collaboration

- Starting and Stopping Oracle Real-Time Collaboration Components

- Using the Configuration Wizard for Oracle Real-Time Collaboration

- About Document and Voice Conversion Servers

- Oracle Real-Time Collaboration Reassociation

When performing the tasks described in this chapter, you will set various Oracle Real-Time Collaboration properties. For more details about properties, see Chapter 3.

You will run `rtcctl` commands while setting properties. For more details about the rtcctl utility, see Chapter 4.

Postinstallation Configuration for Oracle Real-Time Collaboration

After you install the Oracle Real-Time Collaboration system, you may want to set up one of the following common configurations, outlined in the following sections:

- If you want to open Oracle Real-Time Collaboration for HTTPS connections from outside the intranet, follow the steps described in "Setting Up an Oracle Real-Time Collaboration SSL Listening Point" on page 2-2.

- The minimum postconfiguration steps are described in "Setting Up Oracle Real-Time Collaboration E-mail and Administration" on page 2-3.

- If you plan to use Oracle Calendar with Oracle Real-Time Collaboration, follow the steps in "Setting Properties Required for Use with Oracle Calendar" on page 2-4.

- If you plan to hold conferences with streaming audio over a PSTN phone line, and you have installed the Voice Conversion Server, follow the steps in "Setting Up Voice Conversion Servers for Oracle Real-Time Collaboration" on page 2-4.

- You can verify Oracle Real-Time Collaboration installation using the `runTests` command. See "Verifying Configuration" on page 2-5 for details.

In addition to these setup steps, you may also want to set up or review the following options:

- *To create clusters for different geographic locations*: You must set properties to identify the location of each of your Oracle Real-Time Collaboration instances. See "Configuring Clusters" on page 3-26 for details.

- *To use SSL encryption for conference and message data*: You must set Oracle Real-Time Collaboration to use SSL encryption. See "Enabling SSL in Oracle Real-Time Collaboration" in *Oracle Collaboration Suite Security Guide* for details about setting up security for Oracle Real-Time Collaboration. See "Configuring SSL Security" on page 3-15 for details about the properties used to set SSL encryption for Oracle Real-Time Collaboration.

- *To monitor Oracle Real-Time Collaboration components*: You can set your third-party monitoring system to periodically ping a set of service availability tests. See "Monitoring Service Availability" on page 5-1 for details.

- *To review the default behavior for commonly used Oracle Web Conferencing features*: Commonly used Oracle Web Conferencing features are enabled by default. For security reasons, you may want to disable some of these features. See "Commonly Used Properties for Oracle Web Conferencing" on page 3-4 for details.

- *To review the default settings for properties that control Integration Services*: By default, most of the Integration Services that let you programmatically access any of the Oracle Real-Time Collaboration features are enabled. For security reasons, you may want to disable some of these services. See "Configuring Integration Services Using Properties" on page 8-3 for details.

Setting Up an Oracle Real-Time Collaboration SSL Listening Point

You must set up an Oracle Real-Time Collaboration SSL listening point if you want to allow HTTPS connections from outside the intranet. The machine on which Oracle Collaboration Suite is installed must be accessible from the Internet, and the HTTPS port must be open through the firewall (port 443 is recommended).

To set up an SSL listening point, follow these steps:

1. Log in to Web Cache Administration by using the following URL:

   ```
   http://<mid-tiermachine>:<port number>/webcacheadmin
   ```

   The default web cache port number is 9400. The port number can be obtained from the value of the Web Cache Administration port found in *<$ORACLE_HOME>*/install/portlist.ini.

2. Click **Listen Ports** under Ports to add an entry for the HTTPS protocol.

3. Click **Add** and enter the following values:

   - IP Address: ANY

   - Port Number: Value of Oracle HTTP Server SSL port found in *<$ORACLE_HOME>*/install/portlist.ini

   - Protocol: HTTPS

- Require Client Side Certificate: Do not enable
- Wallet: `<$ORACLE_HOME>/webcache/wallets/default`

4. Click **Submit**.

5. Click **Apply Changes**.

> **Note:** Adding an SSL listening point does not make Oracle Real-Time Collaboration secure. See "Configuring SSL Security" on page 3-15 for information on configuring Oracle Real-Time Collaboration for SSL.

Setting Up Oracle Real-Time Collaboration E-mail and Administration

You perform the following steps once so that you can use Oracle Real-Time Collaboration to hold conferences and send messages.

Step 1 Integrate with existing e-mail.
The Oracle Real-Time Collaboration system can generate outbound e-mail for various purposes, such as inviting users to a conference, and allowing users to send feedback. Depending on how you installed Oracle Collaboration Suite, you may need to configure the Oracle Real-Time Collaboration system with information about your SMTP host and administrator email account. If you need to perform this step, you only do it once. This e-mail feature is specifically for use by Oracle Real-Time Collaboration and is separate from the e-mail capabilities offered by Oracle Mail.

On a system containing a Oracle Real-Time Collaboration core component instance, enter the following commands:

```
$ORACLE_HOME/imeeting/bin/rtcctl
rtcctl> setProperty -system true -pname SmtpHost -pvalue mailhost.mycompany.com
rtcctl> setProperty -system true -pname SmtpPort -pvalue 25
rtcctl> setProperty -system true -pname EmailEnabled -pvalue true
rtcctl> setProperty -system true -pname AdminEmail -pvalue
administrator@mycompany.com
rtcctl> setProperty -system true -pname ContactFromEmail -pvalue
support@mycompany.com
```

SmtpHost and SmtpPort identify your SMTP mail server and the port it listens on. EmailEnabled is a toggle to enable sending e-mail for conference invitations. AdminEmail is the e-mail account that receives mail from the "Contact Us" link on the Oracle Real-Time Collaboration Web Client pages. ContactFromEmail is the e-mail account used to send the mail from "Contact Us" submissions.

See "Configuring E-mail Invitations" on page 3-35 and "Configuring Customer Feedback E-Mail Accounts" on page 3-48 for more details about these properties.

Step 2 Set up the administrator role.
You must have at least one user with full business administrator privileges. The business administrator can monitor the system, view reports, create and maintain any custom sites, and check system status. To set this user, you use the `modifyRole` command within `rtcctl`. You do this step once.

On a system containing an Oracle Real-Time Collaboration instance, enter the following command. Substitute the appropriate user name for the sample shown.

```
$ORACLE_HOME/imeeting/bin/rtcctl modifyRole -username joe.smith -rolename
businessadmin
```

See "Setting User Roles" on page 4-15 for more details about this command.

Setting Properties Required for Use with Oracle Calendar

There are two properties that affect interactions between Oracle Real-Time Collaboration processes and Oracle Calendar. Depending on how you choose to use these components together, you may need to set the properties described in this section.

Forcing Users to Schedule Conferences Through Oracle Calendar

If your company uses both Oracle Calendar and Oracle Web Conferencing, you may require users to schedule conferences solely through the calendar. To do so, you set the IsCalendarOCSInstalled property to prevent the **Schedule** tab from appearing on the Oracle Real-Time Collaboration Web Client pages.

Setting this property means that the **Schedule** tab is *not* available to any users. Any references to the **Schedule** tab in this manual will no longer apply.

See "Suppressing the Schedule Tab if Oracle Calendar is Used" on page 3-33 for more details about this property.

Allowing or Preventing Access by Guest Users

Oracle Real-Time Collaboration can allow access to conferences and instant messages from **nonregistered users** (users not in your Oracle Internet Directory). You may decide to prevent this, by setting the GuestUserAccessEnabled property to false.

If you prevent access in this way, you must be certain to set the allowguestusers parameter in Oracle Calendar to false as well. If allowguestusers is true, and your users schedule a conference in Oracle Calendar and invite users who are not in your Oracle Internet Directory, the conference will be scheduled but the nonregistered users will not get the invitation.

On a system containing an Oracle Real-Time Collaboration instance, enter the following command:

```
rtcctl> setProperty -system true -pname GuestUserAccessEnabled -pvalue false
```

This will prevent guest user access at the syste level. You can also set this property for a specific site to prevent guest user access for just that site.

See "Preventing Guest User Access" on page 3-19 for details about setting the GuestUserAccessEnabled property. See Chapter 3, "Calendar Server Parameters" of *Oracle Calendar Reference Manual* for details about setting the allowguestusers parameter.

Setting Up Voice Conversion Servers for Oracle Real-Time Collaboration

If you use streaming voice over a PSTN phone line in Web conferences, you should configure the dial-in information for your Voice Conversion Server as described in the following steps:

1. Set the VoiceDialInPrefix property. This property provides the dial-in prefix for any voice calls made through Oracle Real-Time Collaboration. For example, many companies require users to enter a 9 before dialing out; you can enter that value into the dial-in prefix property. On the Voice Conversion Server, you would enter:

```
$ORACLE_HOME/imeeting/bin/rtcctl setProperty -i instance-name -pname
VoiceDialInPrefix -pvalue 9
```

See "Configuring Voice Conversion Servers" on page 3-49 for details about this property.

2. Set up system dial-ins.

System dial-ins are available to all Oracle Web Conferencing users. Typically, system administrators create system dial-ins for phone conference vendors that are used commonly by the users of the system.

Enter the system dial-in using the `AddSysDialin` command in `rtcctl`.

```
$ORACLE_HOME/imeeting/bin/rtcctl addSysDialin -name Name_for_Dial-in -sequence
dial-in sequence
```

When entering a dialing sequence, remember:

- Include whatever prefix your country requires for dialing between regions, or from one country to another.

  For example, users dialing inside the U.S. must enter a 1 followed by the area code number. Users dialing from the U.S. to countries outside the U.S. must enter 011 followed by the country code, then the area code and number.

- To have the dialing pause for 1 second, insert a comma (,).

- If users must press the hash sign (#) or asterisk (*) keys after entering a number, include the # or * in the dialing sequence.

System dial-ins serve as examples for users; they may be missing information such as the specific user Personal Identification Number (PIN) or conference ID. For example, a system administrator might create a systemwide dial-in for a particular conference vendor that contains the toll-free number for the vendor, followed by a placeholder for the PIN and Conference ID and the required entry keys (# or *), with pauses (,). Users would then modify the system dial-in by selecting it when starting a voice-streaming conference, and adding their PIN and Conference ID. Table 2–1 shows sample dial-in sequences.

Table 2–1   Example Dial-Ins

Dial-in Name	Dial-in Sequence
Audio Conferencing Vendor (US)	18005555555,<ADD PIN HERE>#,,,,,,,,,#,,,,,,,,#
Joe's account with Audio Conferencing Vendor	18005555555,8282828#,,,,,,,,, #,,,,,,,,#

See "Setting Conference Dial-In Information" on page 4-16 for details about the syntax of the `addSysDialIn` command.

3. *Optional:* If you have set up clusters using the InstanceLocation property to identify different groups of Oracle Real-Time Collaboration components, you can assign InstanceLocation properties to your Voice Conversion Server to have it support a specific group of components. See "Configuring Clusters" on page 3-26 for details about how to set this property.

Verifying Configuration

Run the following test to verify that the Oracle Real-Time Collaboration core components have been configured correctly.

```
$ORACLE_HOME/imeeting/bin/rtcctl runTests -system true
```

You can also run individual tests on various services and components of the system using the `runTests` command. See "Monitoring Service Availability" on page 5-2 and "Running Configuration Tests" on page 5-7 for details about these tests.

To verify that any Voice Conversion Server is set up correctly, shut down any other Voice Conversion Servers that are assigned to serve the same Oracle Real-Time Collaboration core components. Then, on a core component system, enter:

```
$ORACLE_HOME/imeeting/bin/rtcctl runtests -testlist voiceconvtest
```

Do the same for the Document Conversion Server:

```
$ORACLE_HOME/imeeting/bin/rtcctl runtests -testlist docconvtest
```

See "Testing and Monitoring the System" on page 4-21 for more information about the `runTests` command.

> **Note:** If you use clusters, the Voice Conversion Server availability test and the Document Conversion Server availability test will fail on the core components instance if the Document Conversion and Voice Conversion Servers do not have InstanceLocation properties that match the InstanceLocation of the Oracle Real-Time Collaboration core components instance. See "Configuring Clusters" on page 3-26 for information about setting the property.

Recommended Postinstallation Checks for Oracle Real-Time Collaboration

After you have installed Oracle Real-Time Collaboration and performed the configuration tasks outlined in this chapter as necessary, you can determine whether the system is running properly by performing any of the optional tasks shown in Table 2–2.

Table 2–2   Recommended Checks for Oracle Real-Time Collaboration System

Item to Test	Task	Expected Result
Provisioning Pages	Create several users by accessing the User Provisioning pages in the Oracle Internet Directory.	Users should be created as expected. The RTC component should be listed on one of the pages as an available component. User is able to sign in to the Oracle Real-Time Collaboration Web Client.
Log In	Log in as an administrator user and verify the change in the Web Client.	A total of 8 tabs should appear at the top of the page: Home, Schedule, Materials, Archive, Monitor, Site, Reports, System.
UI Check	Click each of the administrative tabs (right four tabs).	All the administrative pages should appear with no reported errors.
Materials	Click the **Material** tab and upload Microsoft PowerPoint, Word, and Excel documents, and an HTML document. If possible, upload one PowerPoint document with Multibyte type characters present.	The documents should be uploaded successfully. Appropriate confirmation messages should display. Documents can be opened for preview.

Table 2–2   (Cont.) Recommended Checks for Oracle Real-Time Collaboration System

Item to Test	Task	Expected Result
Schedule	Schedule a conference. Set the Audience type set to All Users. In the Attendees section include the login names of both registered and nonregistered participants.	The conference should be scheduled successfully and confirmation messages received by the attendees. This conference should be visible in the conference tables from the home page, and it can be joined directly from the e-mail invitation.
Schedule	Schedule another conference. Set the Audience to Registered Users. Choose any other options you want to test.	The conference should be scheduled successfully and confirmation messages received by any attendees. Other settings applied during the scheduling process should appear. Nonregistered users should receive an error message if they attempt to attend.
Instant conference	Start an instant conference from the home page.	An instant conference should start.
Join an instant conference	Join the same conference from another computer as a guest (do not log in).	Guest should be able to join the conference by entering the conference ID as a guest.
Document Presentation	While in a conference, click the **Document Presentation** icon. Select each type of document uploaded previously. Pass shared control and presenter's rights to one of the participants.	Every uploaded document can be viewed with conference participants. Once an attendee receives granted control, he should be able to control the current document or display one of his own as a presenter.
Whiteboard	While in a conference, click the **Whiteboard** icon and draw on the whiteboard. Do the same as an attendee.	Both users should be able to draw at the same time. Content should be passed to all screens simultaneously.
Desktop Sharing	While in a conference, click the **Desktop Sharing** icon and use the pull-down menu to share the entire desktop. Share just an application. Share a part of the screen. Check Stop All Sharing. Pass shared control and presenter's rights to one of the participants.	Shared content should be passed to every participant in the conference. All available share tools should work as expected. Presenters with shared control should be able to browse presented materials. Those granted presenter's rights should be able to present and share their desktops.
Chat	While in a conference, click to send a chat message from the host to the attendee and vice versa. Check private chat options.	Message should be sent and received as expected. Private chat should work correctly.
Polling	While in a conference, click **Create a New Poll** or select a poll from the list. Send the Poll and let the attendee respond.	Polls are created and sent to host and participants. All graphs appear as expected. Results appear as users enter responses.
Voice: PSTN Dial-In	While in a conference, click the **Voice** icon on the top of the screen. Dial in to your local phone. Make sure participants can hear the stream.	Voice stream should be initiated. Participants should be able to hear a voice stream to their PC speakers.

Table 2–2   (Cont.) Recommended Checks for Oracle Real-Time Collaboration System

Item to Test	Task	Expected Result
Voice: Computer Microphone	While in a conference, click the **Voice** icon on the top of the screen. Choose **Computer Microphone** for the input. Click the Microphone button in the Web Conferencing console, and begin speaking.	Participants should be able to hear the voice stream through their PC speakers.
Recording	While in a conference, click the **Record** (tape) icon. Test both Voice and Data Only options.	Conference should have been recorded. Playback options for this conference are available for selection in the Archive pages, after the conference has ended. (The host must make playback available to other users before others can see the playback option.)
Playback	Go to the **Archive** tab. Play back one of your recorded conferences. Make sure Data and Voice are consistent and quality is acceptable. Test playback tools (Play, Stop, FF, RW).	Conference playback should work correctly.
Download Oracle Messenger Console	Choose **New User** from the home page. Choose to download the Oracle Messenger console.	File Download dialog box should appear. Options are: Open, Save, Cancel and More Info. Use the Save option to save the oimsetup.exe file.
Install Oracle Messenger	Execute the downloaded oimsetup.exe file.	Oracle Messenger icon should appear on the desktop. Double-clicking starts Oracle Messenger sign-in window; user can sign in.
Oracle Messenger File Menu	Sign out of Oracle Messenger by choosing **File** and then **Sign Out**.	User should be signed out from the system.
Add a contact to Oracle Messenger	Choose **Add** and then **Contact by ID** and create a new contact by entering a valid e-mail address.	Contact should be created.
Add a group to Oracle Messenger	Choose **Add** and then **Group** and create a new group.	Group should be created. You should be able to drag contacts to the group.
Send a file using Oracle Messenger	Select an available contact and choose **Send a File**.	A dialog box should appear. You should be able to select a file and send it. Recipient should see a dialog asking him to accept.
Send a message in Oracle Messenger	Double-click an available contact. Type in a message and press enter.	Message should be received; recipient should be able to reply.
Leave an Oracle Messenger chat	While in a chat window, click the **Leave Chat** button.	If a chat window has only one participant, clicking Leave Chat should close the window completely. If you are holding multiple chat sessions, clicking Leave Chat should close the chat channel to only that contact.
Voice chat in Oracle Messenger	Right click an available contact and choose **Start Voice Chat**.	Recipient should receive an invitation. If accepted, both parties should be able to speak into their PC microphones and hear each other from their PC speakers.

Table 2–2   (Cont.) Recommended Checks for Oracle Real-Time Collaboration System

Item to Test	Task	Expected Result
Start a Web conference from Oracle Messenger window	Right click an available contact and choose **Start Web Conference**.	The invitation window should appear. Can select more online users to invite, enter conference title and password, invitation text message. Web conference should start, and invitations should be received.
Remove a contact from Oracle Messenger	Right click a contact and choose **Remove Contact**.	A delete contact dialog box appears. Clicking OK should remove the contact from the roster or from the selected group. Pressing Cancel or Esc should cancel the process.
Start a Web conference from a chat session	While in a chat window, click the **Start Web Conference** button.	A Web conference should start on the host's computer. Participants should receive an invitation.
Start a chat conference from the Oracle Messenger window	Click the **Chat Conference** icon in the Oracle Messenger window.	A new chat conference window should appear; you should be able to choose participants, send an invitation, and start the chat conference.
Join an existing chat conference	Click the **Chat Conference** icon and choose **Actions** and then **Join Existing Chat Conference**. Enter the chat conference ID.	You should be able to join the chat conference.
Download the Oracle Real-Time Collaboration Add-In for Microsoft Office	Choose **New User** from the home page. Choose to download the Oracle Real-Time Collaboration Add-In for Microsoft Office.	File Download dialog box should appear. Options are: Open, Save, Cancel and More Info. Use the Save option to save the addin_setup.exe file.
Install Oracle Real-Time Collaboration Add-In for Microsoft Office	Execute the downloaded addin_setup.exe file.	When installation is complete, a help page explaining how to use the add-in will appear. Open Microsoft Outlook and confirm that the Oracle RTC toolbar is visible.
Log in to Oracle Real-Time Collaboration Add-In for Microsoft Office	From the Oracle RTC menu in the toolbar, choose Preferences. Enter your username and password, and click OK.	You should be signed in to Oracle Real-Time Collaboration.
Create an instant conference using the Oracle Real-Time Collaboration Add-In for Microsoft Office	In the Oracle Real-Time Collaboration Add-In for Microsoft Office toolbar, click **Instant Conference**.	In the Oracle RTC Instant Conference dialog box, you are prompted to enter a conference title and conference key. After clicking **Start Conference**, an instant conference should start.

Starting and Stopping Oracle Real-Time Collaboration Components

The Oracle Real-Time Collaboration components and related Oracle Application Server components are started during installation. To start or stop these components, you can do so either using the `opmnctl` and `rtcctl` utilities or by using the Oracle Enterprise Manager Application Server Control for Oracle Collaboration Suite.

In addition to using the commands described in the following sections, it is possible to stop specific instance processes using the Diagnostics reports available under the

Monitor tab by choosing **Conference Details** and then **Diagnostics**. See "Monitoring Current Conferences" on page 5-6 for more information.

Commands to Use with Caution

The following commands should be used only with great caution. They stop *all* of the following processes on an instance.

- `opmnctl stopall`

  This command shuts down *all* of the following processes:

  Oracle HTTP Server
  Oracle Real-Time Collaboration Application for J2EE (OC4J_imeeting)
  Oracle Internet Directory
  Oracle Real-Time Collaboration process manager (rtcpm)
  All Oracle Real-Time Collaboration processes running on this instance

- `rtcctl stop`

  This command stops every Oracle Real-Time Collaboration process running on the current instance.

Starting All Processes

The `opmnctl startall` command starts all processes on an instance, including all Oracle Real-Time Collaboration processes.

You can enter a second start command after a process is already started. For example, you can enter `rtcctl start` on an instance after you have already entered `opmnctl startall`.

Order in Which to Stop and Restart ("Bounce") Processes

The following list shows the order in which you can stop and restart ("bounce") Oracle Real-Time Collaboration processes.

1. Bounce the Oracle HTTP Server:

   ```
   $ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=HTTP_Server
   $ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=HTTP_Server
   ```

2. Bounce OC4J_imeeting (Oracle Real-Time Collaboration Application for J2EE):

   ```
   $ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=OC4J process-type=OC4J_
   imeeting
   $ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=OC4J process-type=OC4J_
   imeeting
   ```

3. Bounce the Oracle Real-Time Collaboration Applications tier:

   ```
   $ORACLE_HOME/imeeting/bin/rtcctl
   rtcctl> stop
   rtcctl> start
   rtcctl> getState
   ```

   > **Note:** Stopping and restarting an Oracle Real-Time Collaboration Applications tier halts *all* active conferences. Do not stop and restart without giving your users sufficient warning to end their current conferences.

4. Bounce the Document Conversion Server (installed on a Windows system):

```
%ORACLE_HOME%\imeeting\bin\rtcctl
rtcctl> stop -ct docconv
rtcctl> start -ct docconv
rtcctl> getState
```

5. Bounce the Voice Conversion Server (installed on a Windows system):

```
%ORACLE_HOME%\imeeting\bin\rtcctl
rtcctl> stop -ct voiceconv
rtcctl> start -ct voiceconv
rtcctl> getState
```

Starting or Stopping Instances with Oracle Enterprise Manager

You can also use the Oracle Enterprise Manager Application Server Control for Oracle Collaboration Suite if you need to stop or start any components, as follows:

1. On the computer running the instance you want to start or stop, open the Application Server Control page for Oracle Collaboration Suite tools.

2. Click **RTC**.

3. Click the **Start** or **Stop** buttons.

This will stop all Oracle Real-Time Collaboration components running on this instance.

To determine which components are running on a particular instance, use the Status report under the **System** tab in the Oracle Real-Time Collaboration Web Client to view a list.

Using the Configuration Wizard for Oracle Real-Time Collaboration

The Oracle Universal Installer lets you install selected Oracle Collaboration Suite components. If you did not choose to install Oracle Real-Time Collaboration when you first ran the installer, or if you need to change some of the entries in the configuration, you can run the configuration wizard for just Oracle Real-Time Collaboration, as follows.

> **Note:** Follow these steps only if you did *not* install Oracle Real-Time Collaboration when you originally ran the Oracle Universal Installer. Refer to the *Oracle Collaboration Suite Installation Guide* for your operating system for instructions on starting the Oracle Universal Installer.

1. On the computer system where you want to configure the Oracle Real-Time Collaboration core components, open the Application Server Control page for Collaboration Suite tools.

2. Click **Configure Component** and select **RTC**.

3. Choose the directory in which you want to install the Oracle Real-Time Collaboration core components.

4. A series of screens will prompt you for the following information:

- The directory into which you want to install Oracle Real-Time Collaboration. This will become the Oracle home for Oracle Real-Time Collaboration.

- Information about the SMTP server used to email conference announcements to attendees.

- The user name and password for the account that Oracle Real-Time Collaboration will use to connect to the Oracle Internet Directory. (The Oracle Internet Directory is used to identify those users who are allowed to participate in Web conferences as registered users, and to identify available contacts for Oracle Messenger.) This user must be an Oracle Application Server administrator.

- The database you will use to store the Oracle Real-Time Collaboration data.

5. You can review your entries and click **Back** to edit them. When you are satisfied they are correct, click **Finish** to start the configuration process.

 After you have clicked **Finish**, you cannot cancel the configuration process. If you realize there is an error, return to the Oracle Application Server Control for Collaboration Suite home page and click **Configure Component** to start configuration again.

About Document and Voice Conversion Servers

As described in "Oracle Real-Time Collaboration Components and Processes" on page 1-1, Oracle Real-Time Collaboration uses a Document Conversion Server to let users load Microsoft Office documents and images into their personal materials repository and convert those documents to HTML or text, and convert images to PNG, for display during a conference. Oracle Real-Time Collaboration also uses a Voice Conversion Server to support voice streaming over a PSTN line during a conference (for example, dialing into a teleconference service during a Web conference).

These servers can be installed on the same Applications tier. The computer *must* be a Windows system, running Windows 2000 Server SP4 or later. To support the Voice Conversion Server, the computer must also have an Intel Dialogic System software 5.1.1 SP1 or later. See "Deploying Oracle Real-Time Collaboration"in *Oracle Collaboration Suite Deployment Guide* for more details about required hardware.

If you did not install the Document and Voice Conversion Servers during the initial installation process, read the *Oracle Collaboration Suite Installation Guide* for your operating system for instructions about how to install them.

Oracle Real-Time Collaboration Reassociation

The following steps show how to reassociate Oracle Real-Time Collaboration 10*g* Release 1 (10.1.2) with an existing Release 9.0.4.1 Oracle Internet Directory.

> **Note:** This procedure is not supported by other Oracle Collaboration Suite components on the same Applications tier.

1. Go to the existing Oracle Internet Directory page (http://*oid_hostname*:*port*/pls/orasso) and create a new partner application, with the following parameters:

 - Name: http://*applications_tier_hostname*

 - Home URL: http://*applications_tier_hostname*:*port*

 - Success URL: http://*applications_tier_hostname*:*port*/osso_login_success

- Logout URL; http://*applications_tier_hostname:port*/osso_logout_success

2. Change to the $ORACLE_HOME/Apache/Apache/conf/osso/ directory on the Applications tier.

```
cd $ORACLE_HOME/Apache/Apache/conf/osso
```

3. Using the information you set up for the partner application, create a text file named *my_file*.conf.clr with the following contents:

```
sso_server_version=v1.2
cipher_key=cipher_key
site_id=site_id
site_token=site_token
login_url=http://hostname:port/pls/orasso/orasso.wwsso_app_admin.ls_login
logout_url=http://hostname:port/pls/orasso/orasso.wwsso_app_admin.ls_logout
cancel_url=http://hostname
```

4. Enter the following command:

```
$ORACLE_HOME/Apache/Apache/bin/apobfuscate my_file.conf.clr my_obfuscated_
file.conf root
```

5. Use a text editor to open the mod_osso.conf file.

6. Change the following entries:

Original text:

```
<IfModule mod_osso.c>
    OssoIpCheck off
    OssoIdleTimeout off
    OssoConfigFile /rtc/m8e/apps/Apache/Apache/conf/osso/osso.conf
...
```

New text:

```
<IfModule mod_osso.c>
    OssoIpCheck off
    OssoIdleTimeout off
    OssoConfigFile /rtc/m8e/apps/Apache/Apache/conf/osso/<SomeName>.conf
...
```

7. Use the rtcctl utility to set the following properties on the Application tier.

```
rtcctl> setProperty -system true -pname ldaphost -pvalue old_release_hostname
rtcctl> setProperty -system true -pname ldapport -pvalue old_release_port
rtcctl> setProperty -system true -pname ldappassword -pvalue old_release_
password
rtcctl> setProperty -system true -pname UserProvisioningEnabled -pvalue false
```

8. Change to the $ORACLE_HOME/j2ee/OC4J_imeeting/application-deployments/imeeting directory.

9. Use a text editor to open the orion-application.xml file.

10. Comment out the following section by adding the <!-- and --> opening and closing markers, as follows:

```
<!--    <jazn provider="LDAP" >
              <property name="s2s.auth.support" value="true" />
        </jazn>
-->
```

11. Stop and restart applications on the Applications tier:

```
$ORACLE_HOME/opmn/bin/opmnctl stopall
$ORACLE_HOME/opmn/bin/opmnctl startall
```

12. Enter the following `sqlplus` commands:

```
sqlplus rtc_app/rtc_app_password@dbname
SQL> create table rtc_persons_bak as select * from rtc_persons;
SQL> create table rtc_users_bak as select * from rtc_users;
SQL> delete from rtc_persons where person_id > 9999;
SQL> delete from rtc_users where user_id > 9999;
SQL> commit;
```

3

Configuring Oracle Real-Time Collaboration

You can configure many parts of the Oracle Real-Time Collaboration system using **properties**. This chapter explains the basics of the property management system and configuration management, and describes the properties most commonly used by administrators for various configurations. This chapter contains the following sections:

- Using Oracle Real-Time Collaboration Properties
- Commonly Used Properties for Oracle Web Conferencing
- Configuring Network Connectivity and Ports
- Increasing Component Processes and Connections
- Configuring SSL Security
- Disabling File Exchange in Oracle Messenger
- Enabling Anonymous Chat Conferences in Oracle Messenger
- Preventing Guest User Access
- Allowing Persistent Passwords in Oracle Messenger
- Enabling Integration Services
- Configuring Clusters
- Configuring the Oracle Real-Time Collaboration Web Client Pages
- Configuring E-mail Invitations
- Configuring Web Conferences
- Configuring Feedback Methods
- Configuring Voice Conversion Servers
- Configuring Reports
- Controlling Archives
- Configuring System Logs
- Configuring Time Zones
- Configuring LDAP Settings
- Configuring Registration Notification Messages

You use the rtcctl utility to set properties. This chapter gives the syntax for setting various properties with the rtcctl utility; for more details about using the utility, see Chapter 4, "rtcctl Command-Line Utility for Oracle Real-Time Collaboration".

Using Oracle Real-Time Collaboration Properties

You use properties to configure the Oracle Real-Time Collaboration system. You set properties to customize attributes of the entire system, as well as aspects of individual instances and components. You can also set properties for particular sites that you create, to control conference attributes for a particular line of business or department within your company (see Chapter 8, "Oracle Real-Time Collaboration Sites" for information about creating sites).

The following sections discuss:

- Properties and Their Scope
- Multiple-Scope Properties
- Using rtcctl to Set Properties
- Listing Current Property Settings

Properties and Their Scope

The portion of the Oracle Real-Time Collaboration system that a property affects is called its **scope**. The possible scopes of each property are described in the following list.

- **System properties:** Set for an entire Oracle Real-Time Collaboration system. They are typically set once and do not need to be changed when a new instance or new set of Oracle Real-Time Collaboration core components is added to the system.

  Example: Logging properties. These control various aspects of the system logs, and are generally set once for an entire system.

- **Instance properties:** Set on a single instance. Any change in the value of these properties affects that instance only.

  Example: Location properties. Each instance in the system may have its location attribute set to a different value.

- **Component properties:** Set on a component in a specific instance. A change in the properties affects the configuration of that component only.

  Example: Properties to control the number of processes for a component. Each component in an instance can have a different number of processes. For example, the multiplexer component could run two multiplexer processes, and the Web Conferencing Server component could have four Collaboration Server processes.

  Note that changes to component properties apply to that component in that instance only. Changes do not affect the same components in other instances. So, for example, if you want to set the number of multiplexer processes to five on all instances, you must set this property for each instance.

- **Site properties:** Set on a specific site, to configure Oracle Real-Time Collaboration for a particular line or business or department. See Chapter 8 for details about creating sites.

  Example: The PreLoginMessage property. This property controls the text of a message that appears under the login link on the login page. You could display a different message for each site you create.

Multiple-Scope Properties

Some properties affect multiple scopes. Figure 3–1 shows the scopes of the properties and their relationship to each other.

Figure 3–1   Hierarchy of Configuration Properties
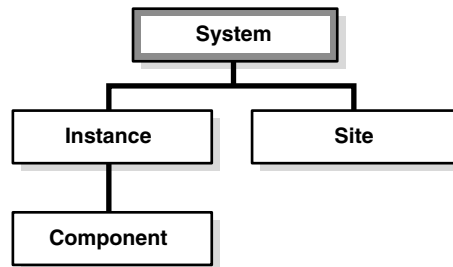
Oracle Real-Time Collaboration provides the following features for properties:

- **Inheritance:** The property value at a particular scope can be inherited from higher up in the hierarchy. For example, if you set the log level at the system scope, all instances and components in instances will use that log level.

  The path of inheritance follows the order shown, from top to bottom, in Figure 3–1. System level is the broadest scope. Both instances and sites can inherit properties from the system. Components can inherit properties from their instance.

- **Allow Overrides:** A property can be set at a certain scope, but the value can be overridden lower down in the hierarchy and set to a different value. For example, the log level could be set at the system scope, but you can change the log level of a specific instance. All other instances will maintain the log level set at the system scope.

- **Force Values:** An administrator can force the value of a property from a higher level onto lower levels. An administrator might set a property for the entire system using the `-force` option, so that the property cannot be overridden at the instance or component level. For example, the SSLRequiredForMeetings property can be set and forced at the system level, so that no instance or site can override it. See "Forcing Property Inheritance" on page 4-4 for more details about forcing values.

This approach provides an administrator maximum flexibility and ease in configuring the system. You set the scope of a property by including a scope option with the `rtcctl` command, for example, `-system` or `-instance`. See Chapter 4 for more details about rtcctl.

The rest of the sections in this chapter describe how to use individual properties. For each property, the scopes that apply are noted as defined in Table 3–1.

Table 3–1   Available Scopes for Properties

Scope	Property Affects:
system	Property can be set to affect the entire system.
instance	Property can be set to affect an instance.
component	Property can be set to affect a component.
system and instance	Property can be set to affect the entire system, but can be overridden for a specific instance.
instance and component	Property can be set to affect an instance, but can be overridden for a specific component in that instance.
system, instance, component	Property can be set to affect the entire system, but can be overridden for a specific instance, and in turn overridden for a specific component in that instance.

Table 3–1   (Cont.) Available Scopes for Properties

Scope	Property Affects:
site	Property can be set to affect an entire site.
site-user	Property can be set to affect an entire site but can be overridden for a specific user.
system and site	Property can be set to affect the entire system, but can be overridden for a specific site.

Using rtcctl to Set Properties

You use the rtcctl utility to set properties. This chapter includes examples of how to set each property described. In these examples, it is assumed that you are using rtcctl in shell mode, as described in "Using rtcctl in Shell Mode" on page 4-2. For all of the examples in this chapter, assume that you have already done the following to enter shell mode:

```
$ORACLE_HOME/imeeting/bin/rtcctl
rtcctl>
```

You can exit shell mode by entering exit.

Listing Current Property Settings

You can display a listing of current property settings using the getProperties command. See "getProperties" on page 4-13 for more information about viewing existing property settings.

You can also view all properties explicitly set for a system, site, or instance using the Status report under the **System** tab:

1. Click **System**.

2. Make sure **Show Properties** at the top of the report is checked on.

3. Click **Expand All** to display all information in the report.

4. You can scroll down to see properties set for specific instances, properties set for the system, and properties set for each site.

    The Status report shows only those properties set using the setProperty command. System defaults do not appear in the report.

Commonly Used Properties for Oracle Web Conferencing

Later sections of this chapter describe all properties available to configure Oracle Real-Time Collaboration. However, there are some commonly used properties that control basic Oracle Web Conferencing features that you may want to refer to quickly. There is also a set of properties that correspond to preferences that users can set through various graphical user interfaces in Oracle Real-Time Collaboration. This section covers these topics:

■ Default Behavior of Basic Oracle Web Conferencing Features

■ Properties for Default Web Client and Conference Console Preferences

Default Behavior of Basic Oracle Web Conferencing Features

By default, the basic Oracle Web Conferencing features listed in Table 3–2 are enabled. An administrator can choose to disable any of these features using the properties shown in Table 3–2. For example, an administrator may want to disable some of these features for security reasons.

Table 3–2   Properties That Control Basic Oracle Web Conferencing Features

Property	Default Behavior
AddInDownloadEnabled	Displays a link to download the Oracle Real-Time Collaboration Add-In for Microsoft Office on the Home page and on the New User page.
ChatEnabled	Hosts and attendees can participate in various levels of chat within the conference console.
ConferenceRecordingDownloadEnabled	Meeting attendees or other users who can view a conference archive can download the conference recording.
ConferenceRecordingPlaybackEnabled	Meeting attendees or other users who can view a conference archive can play back the conference recording.
EnableDesktopSharingMode	Hosts and presenters can share their desktops.
EnableDocumentPresentationMode	Hosts and presenters can present documents using Document Presentation Mode.
EnableGuestForPresenterRole	Hosts can allow a nonregistered user to become a presenter and interact with the desktop.
EnableRecording	Allows conferences to be recorded.
EnableVoice	Allows streaming audio in conferences.
EnableWhiteboardMode	Allows hosts and presenters to use an electronic whiteboard.
FileTransferEnabled	Allows Oracle Messenger users to exchange files using Oracle Messenger's non-secure File Exchange feature. If you want to disable this feature, you must do so before users download the Oracle Messenger client.
GuestUserAccessEnabled	Nonregistered users (users who are not members of the Oracle Internet Directory) can use Oracle Real-Time Collaboration features.
MessengerDownloadEnabled	Displays a link to download Oracle Messenger on the Home page and on the New User page.
RememberPasswordEnabled	Users must always enter their password when signing in to Oracle Messenger.
EnableSharedControl	Hosts can share control of their desktops with other users during a conference.

Each of the properties in Table 3–2 is a Boolean; you can set it to *true* to allow the feature, or *false* to disallow it. As described in "Multiple-Scope Properties" on page 3-2, if you *force* the property setting, sites and instances inherit them and cannot override them. So, for example, if you want to make sure that no host can use streaming audio in conferences, you would set the EnableVoice property as follows:

```
rtcctl>setProperty -system true -pname EnableVoice -pvalue false -force true
```

See "Forcing Property Inheritance" on page 4-4 for more details about forcing property values. See "Configuring Web Conferences" on page 3-36 for details about the preceding properties, and all other properties that can be used to configure Web conferences.

Properties for Default Web Client and Conference Console Preferences

An administrator can set a number of properties to control the Oracle Real-Time Collaboration Web Client pages and the behavior of the Oracle Web Conferencing Console. Users can also set preferences for their own conferences, or set defaults for a conference while scheduling it using the Web client.

As described in "Multiple-Scope Properties", you can force property values set on the system so that sites and instances inherit them; in that case, users will not be able to change these forced property values. Conversely, if a property value set by the administrator is *not* forced, users and site administrators can override it using the following user interfaces:

- The Conference Properties page on the **Sites** tab

- The Preferences page available to each user from the Web client

- The Preferences dialog available to each conference host from the conference console

- The defaults available in the **Schedule** tab

Table 3–3 lists the properties that set the defaults seen in the different Oracle Real-Time Collaboration user interfaces. A "yes" means the setting can also be controlled in the listed interface.

Table 3–3   Properties Corresponding to Site, User, Console, and Schedule Preferences

Property	Controls	Site Properties	User Preferences	Console Preferences	Schedule Defaults
ConsoleAttendeeControlLayout	Whether an attendee can change the layout of the conference console	Yes	Yes	Yes	Yes
ConsoleAttendeeUseAnnotationTool	Attendees or presenters can use the whiteboard tools	Yes	Yes	Yes	Yes
ConsolePresenterUseAnnotationTool	Attendees or presenters can use the whiteboard tools	Yes	Yes	Yes	Yes
ConsoleAttendeeViewAttendeeList	Attendees can see the attendee list	Yes	Yes	Yes	Yes
ConsoleAttendeeViewStatusAlerts	Attendees can view messages as other attendees join or leave the conference	Yes	Yes	Yes	Yes

Table 3–3   (Cont.) Properties Corresponding to Site, User, Console, and Schedule

Property	Controls	Site Properties	User Preferences	Console Preferences	Schedule Defaults
GroupChat	Attendees can participate in a group chat with selected attendees	Yes	Yes	Yes	Yes
HostChat	Attendees can chat with the conference host	Yes	Yes	Yes	Yes
ConferenceStartupMode	Default sharing mode for the conference	Yes	Yes	No	Yes
ConsoleAutoHide	The console is hidden by default	Yes	Yes	No	Yes
ConsoleExpandHelpText	Display help text in the console toolbar	Yes	Yes	No	Yes
ConsoleExpandSecondRow	Display the second row of the console toolbar	Yes	Yes	No	Yes
HostExitUrl	The web page shown as hosts leave the conference	No	Yes	No	No
HostStartUrl	The web page shown as the host enters the conference	Yes	No	No	No
ConsolePresenterSendPolls	Presenters can send polls	Yes	Yes	Yes	Yes
ConsolePresenterSwitchModes	Presenters can change sharing modes	Yes	Yes	Yes	Yes
PublicChat	Attendees can participate in a public chat with all other attendees	Yes	Yes	Yes	Yes

Configuring Network Connectivity and Ports

This section discusses all properties that pertain to configuring Oracle Real-Time Collaboration network connectivity. This section covers the following types of properties:

- Integrating with the Oracle HTTP Server
- Setting Domain Names Used by Oracle Messenger
- Configuring Client Connections
- Integrating with a Load Balancer

Integrating with the Oracle HTTP Server

To make sure that the Oracle Real-Time Collaboration system communicates properly with the Oracle HTTP Server, you must set properties that identify the ports used by the Oracle HTTP Server.

ApacheProtocolSecure

Description: Sets whether the ApacheWebHost is using SSL.

Default Value: false

Valid Value: true, false

Scope: system

Example: If the Oracle HTTP Server Web host is using SSL, this property needs to be set to true, as follows:

```
rtcctl> setProperty -pname ApacheProtocolSecure -pvalue true
```

ApacheWebHost

Description: Sets the host name for the Oracle HTTP Server (an Apache server). The Oracle Real-Time Collaboration installer assumes that the actual host name configured for the system is used by clients to access Oracle Real-Time Collaboration resources. This might not be true in some deployments where DNS aliasing and other advanced network deployment scenarios might require customization of the names used to access Oracle Real-Time Collaboration resources from external locations.

Default Value: Actual host name derived at installation by the installer.

Valid Value: Any host name.

Scope: instance

Example: If the actual host name is web10.us.mycompany.com, but if the name to be used is conference.company.com, enter:

```
rtcctl> setProperty -pname ApacheWebHost -pvalue "conference.company.com"
```

ApacheWebPort

Description: The port on which the Oracle HTTP Server is listening for HTTP requests.

Default Value: 7777

Valid Value: Any legal port value. The port value should match Apache "Port" directives, which typically match web cache "listening" ports.

Scope: instance

Example: If the Oracle HTTP Server on the instance is listening on port 80 instead of 7777 for HTTP requests (a typical setup), enter:

```
rtcctl> setProperty -pname ApacheWebPort -pvalue 80
```

> **Note:** Setting the port to a value other than 80 may prevent access to users connecting from behind remote proxies.

ApacheWebSecurePort

Description: The port on which the Oracle HTTP Server is listening for HTTPS requests.

Default Value: 4443

Valid Value: Any legal port value. The port value should match Apache "Port" directives, which typically match web cache "listening" ports.

Scope: instance

Example: If the Oracle HTTP Server on the instance is listening on port 443 instead of 4443 for HTTPS requests, enter:

```
rtcctl> setProperty -pname ApacheWebSecurePort -pvalue 443
```

> **Note:** Setting this to something other than 443 may prevent access to users connecting from behind remote proxies.

Setting Domain Names Used by Oracle Messenger

The following property controls what domain name is assumed when communicating with users in Oracle Messenger.

IMDomainNames

Description: The domain name assumed by Oracle Messenger for users.

Default Value: The domain name for the Oracle Internet Directory or LDAP server for this system (determined during installation)

Valid Value: An array of domain names, in the format: "[\"domain1\", \"domain2\"]"

Scope: system

Example: To set the domain names assumed by Oracle Messenger to be mycompany.com followed by us.mycompany.com, enter:

```
rtcctl> setProperty -system true -pname IMDomainNames -pvalue "[\"mycompany.com\",
\"us.mycompany.com\"]"
```

Configuring Client Connections

The properties described in this section control how Oracle Real-Time Collaboration components communicate with clients for Web conferencing or instant messaging. You can reset the port values used for client communications, and enable or disable access to some of these ports.

See "Oracle Real-Time Collaboration Ports and Network Connectivity" on page 1-1 for more information about the ports listed in this section.

IMXMPPDirectConnEnabled

Description: Enables direct connections from Oracle Messenger clients and third-party clients such as Gaim to the XMPP and XMPPS ports (by default, ports 5222 and 5223) to communicate with the RTC Redirector and Client Connection Manager for instant messages.

> **Note:** If you want to require only Secure Sockets Layer (SSL) connections for instant messages and your users *only* use Oracle Messenger, set the IMSSLRequiredForXMPP property to true, as described in "Configuring SSL Security" on page 3-15. If both that property and this one are true, then Oracle Messenger clients will only connect through the XMPPS port.
>
> However, if your users also use a third-party messaging client such as Gaim, the IMSSLRequiredForXMPP property can have no effect on those clients. You must either be certain that Gaim users set their clients to use SSL connections, or you must prevent direct access to the XMPP port (for example, by using a Network Address Translator), or you must disable XMPP connections entirely by setting this property to false. If this property is set to false, then no third-party client can communicate with Oracle Messenger.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To enable direct XMPP connections for instant messages on this system, enter:

```
rtcctl> setProperty -system true -pname IMXMPPDirectConnEnabled -pvalue true
```

RedirectorMxPort

Description: Identifies the port to communicate between the Redirector and the Multiplexer.

Default Value: 1025; Automatically assigned during installation.

Valid Value: Any valid port ID.

Scope: system

Examples: To set this port to 1025, enter:

```
rtcctl> setProperty -system true -pname RedirectorMxPort -pvalue "1025"
```

RedirectorServerPort

Description: The port used to communicate between Oracle Real-Time Collaboration components.

Default Value: Automatically assigned during installation.

Valid Value: Any port ID.

Scope: system

Example: To set this port to 2450, enter:

```
rtcctl> setProperty -system true -pname RedirectorServerPort -pvalue "2450"
```

RedirectorXMPPPort

Description: The port used to communicate with Oracle Messenger from third-party clients.

Default Value: 5222; automatically assigned during installation.

Valid Value: Any port ID.

Scope: system

Examples: To set this port to 5222, enter:

```
rtcctl> setProperty -system true -pname RedirectorXMPPPort -pvalue "5222"
```

RedirectorXMPPSecurePort

Description: The port used to communicate with Oracle Messenger from third-party clients using SSL encryption.

Default Value: 5223; automatically assigned during installation.

Valid Value: Any port ID.

Scope: system

Example: To set this port to 5223, enter:

```
rtcctl> setProperty -system true -pname RedirectorXMPPSecurePort -pvalue "5223"
```

VoiceProxyListenPort

Description: The port used to communicate between two Oracle Messenger clients during a voice chat, when peer-to-peer communication is not possible. This port provides the Simple Traversal of UDP through NAT (STUN) services connection.

Default Value: 3478; automatically assigned during installation

Valid Value: Any port ID.

Scope: system

Example: To set this port to 3478, enter:

```
rtcctl> setProperty -system true -pname VoiceProxyListenPort -pvalue "3478"
```

VoiceSrvHttpPort

Description: The port used to communicate between the Voice Conversion Server and the Oracle Web Conferencing processes during voice streaming.

Default Value: 2455; automatically assigned during installation

Valid Value: Any port ID.

Scope: system

Example: To set this port to 2455, enter:

```
rtcctl> setProperty -system true -pname VoiceSrvHttpPort -pvalue "2455"
```

Integrating with a Load Balancer

A load balancer provides a single published address to the client browsers, while distributing requests to multiple Oracle Real-Time Collaboration core component Applications tiers that serve the requests. It acts as a global Web host for all of the requests. The load balancer itself is a very fast network device that can distribute requests to a large number of physical servers.

Oracle Real-Time Collaboration can be configured to use a load balancer as a front end to all the Applications tiers where Oracle Real-Time Collaboration has been installed.

Generally, you set the Oracle Real-Time Collaboration properties described once for the entire system. However, if you have a different set of published addresses based on geographical considerations, each of these addresses would have multiple Oracle

Real-Time Collaboration core components serving the requests. In this second scenario, you must set the properties on each Oracle Real-Time Collaboration instance.

If you use a load balancer, and you want to require SSL access, you must set the GlobalProtocolSecure and GlobalWebSecurePort properties on the system.

ComponentLoadBalancerElligible

Description: This property allows you to remove an Oracle Real-Time Collaboration server from the load balancing pool without ending current web conferences on that server. This is useful if a server that's part of a multi-Applications tier needs to be brought down for maintenance. You can also use this property if the Oracle Real-Time Collaboration Applications tiers run on several servers which need to be restarted routinely but without affecting ongoing web conferences. You can restart the servers one by one by sequentially setting this property to false on each server.

Setting this property to false allows ongoing web conferences to continue without allowing any new conferences to be assigned to the server where the property is set to false. When all web conferences in progress on that server are completed, then it is safe to perform maintenance work on the machine without affecting end users.

This property only applies to Applications tiers. If the machine is restarted and it also runs the infrastructure or the database, users will still be affected.

Setting this property works without the need to bounce any components. There might be a short delay before all of the load balancers notice the property value change, but typically the delay should be no more than one minute.

Default Value: true

Valid Value: false, true

Scope: component

Example: To remove the component with the component ID (cid) of 1001 from the load balancer pool, enter:

```
rtcctl> setProperty -cid 1001 -pname componentLoadBalancerElligible -pvalue false
```

GlobalWebHost

Description: The name of the global Web host.

For example, multiple Applications tiers could be placed behind a load balancer (server1.oracle.com, server2.oracle.com), but the Web host name you want to have appear in the URL used to join a conference is conference-server.mycompany.com.

The name cannot work if the name is registered arbitrarily in DNS.

Default Value: none

Valid Value: a host name, such as computer.company.com or computer.us.company.com.

Scope: system, instance

Example: To set the global Web host to conference-server.oracle.com, enter:

```
rtcctl> setProperty -system true -pname GlobalWebHost -pvalue
"conference-server.mycompany.com"
```

GlobalWebPort

Description: The HTTP port of the global Web host.

Default Value: 80

Valid Value: Any port ID.

Scope: system, instance

Example: To reset the global Web host to listen on port 80 for HTTP requests, enter:

```
rtcctl> setProperty -system true -pname GlobalWebPort -pvalue 80
```

> **Note:** Setting the port to a value other than 80 may prevent access to users connecting from behind remote proxies.

GlobalWebSecurePort

Description: The HTTPS port of the global Web host. Note that setting the port to a value other than 443 may prevent access to users behind remote proxies.

Default Value: 443

Valid Value: Any port ID.

Scope: system, instance

Example: To reset the global Web host to listen on port 443 for HTTPS requests, enter:

```
rtcctl> setProperty -system true -pname GlobalWebSecurePort -pvalue 443
```

> **Note:** Setting the port to a value other than 443 may prevent access to users connecting from behind remote proxies.

GlobalProtocolSecure

Description: Sets whether the global Web host is using SSL security.

Default Value: false

Valid Value: false, true

Scope: system, instance

Example: If the global Web host uses SSL, set the property to true:

```
rtcctl> setProperty -system true -pname GlobalProtocolSecure -pvalue true
```

Increasing Component Processes and Connections

The Oracle Web Conferencing Server, Oracle Real-Time Collaboration Multiplexer, and Client Connection Manager processes help support clients as they connect for Web conferences or instant messages. (See "Oracle Real-Time Collaboration Architecture" on page 1-11 for an overview of these components and how they communicate.) You can use Oracle Real-Time Collaboration properties to increase the number of running processes, and to increase the maximum number of simultaneous connections handled by the connection manager processes.

Table 3–4 shows the number of processes that are started by default on an instance when you install Oracle Real-Time Collaboration core components.

Table 3–4   Multiprocess Components

Component Name	Component Type	Processes Started by Default
Client Connection Manager	connmgr	1

Table 3–4   (Cont.) Multiprocess Components

Component Name	Component Type	Processes Started by Default
Multiplexer	mx	1
Web Conferencing Server	confsvr	4

You might want to increase the number of running processes to accommodate more conference or messaging users at your site. You use the SrvNumProcs property to increase the processes. You can also control the maximum number of connections that can be made by clients to each of the client connection manager processes that are running.

Table 3–4 lists the only processes whose number you can increase. You cannot increase the number of Oracle Presence Server processes on an instance – there can be only one. If the server process goes down, a high-availability process manager for that server process will try to restart it; if the original server cannot be restarted, a second server will be started from a different core components instance. See "High-Availability Process Manager for Oracle Presence Server Process" on page 5-2 for details.

> **Note:**   You may also need to adjust the number of open file descriptors allowed on a UNIX, Linux, or Solaris system. This limit controls the number of concurrent connections that each multiplexer or client connection manager can handle. See "Cannot Support the Number of Clients Attempting to Connect" on page A-2 for details.

IMMaxConnections

Description: Controls the maximum number of client connections to the Oracle Presence Server on *each* of the Connection Manager processes on the system. The total number of connections supported by the system is the sum of IMMaxConnections for all Connection Manager processes on the system. For example, assume there are 2 Connection Manager processes on instance A, and 3 Connection Manager processes on instance B. The IMMaxConnections is set to 4,000 on instance A, and to 2,000 on instance B. The total number of connections to Oracle Messenger is (4,000 x 2) + (2,000 x 3), or 14,000.

Default Value: 1000

Valid Value: Any integer.

Scope: instance, system

Example: To set the number of simultaneous Oracle Messenger client connections for each Connection Manager on the current instance to 2,000, enter:

```
rtcctl> setProperty -pname IMMaxConnections -pvalue "2000"
```

Be sure that maximum number of open file descriptors allowed on this UNIX, Linux, or Solaris system is at least equal to the value you enter here. See "Cannot Support the Number of Clients Attempting to Connect" on page A-2 for more details.

SrvNumProcs

Description: Sets the processes for each component.

Default Value: 1 for component type mx, 1 for component type connmgr, 4 for component type confsvr

Valid Value: Any integer.

Scope: component

Examples:

- To set the number of Web Conferencing server processes to 8 on the current instance, enter:

    ```
    rtcctl> setProperty -ct confsvr -pname SrvNumProcs -pvalue 8
    ```

- To set the number of mx and connmgr processes to 2 on the current instance, enter:

    ```
    rtcctl> setProperty -ct mx -pname SrvNumProcs -pvalue 2
    rtcctl> setProperty -ct connmgr -pname SrvNumProcs -pvalue 2
    ```

ProcDisabled

Description: Disables a component.

Default Value: false

Valid Value: true, false

Scope: component

Example: To disable the component with the component ID (cid) of 1001, enter:

```
rtcctl> setProperty -cid 1001 -pname ProcDisabled -pvalue true
```

> **Caution:** Disabling a component can cause service unavailability and failure of other components. Disable a component only when specifically directed to do so.

Configuring SSL Security

Oracle Real-Time Collaboration provides complete support for communicating through HTTPS Secure Sockets Layer (SSL).

To configure SSL setup, the Oracle Real-Time Collaboration properties need to be synchronized with Oracle HTTP Server settings or webcache settings. The following properties need to be set:

- ApacheWebSecurePort on page 3-8 *if* you changed this port from the value set during installation

- ApacheProtocolSecure on page 3-8

- GlobalWebSecurePort on page 3-13 *if* you are using a load balancer

- GlobalProtocolSecure on page 3-13 *if* you are using a load balancer

By default, SSL is disabled for the entire system. You can use the RTCSSLSupportEnabled property to enable SSL. Once SSL is enabled, the standard configuration requires the use of SSL for all web conferences and instant messaging connections. The SSLRequiredForMeetings and IMSSLRequiredForXMPP properties can be used to selectively relax specific SSL usage requirements.

The SSLRequiredForMeetings property controls whether or not connections to web conferences use SSL. This property can be configured systemwide, for each site, or for a particular user. The value of this property controls the default behavior for meetings, but can be overridden by specific sites or users unless the -force true option is used to prevent the property from being overridden. The default setting for SSLRequiredForMeetings is true with the -force true option set at the system level.

This requires that all web conferences use SSL connections and prevents this property from being overridden by any site or user. The value of this setting has no effect when RTCSSLSupportEnabled is set to false.

The IMSSLRequiredForXMPP property controls whether Oracle Messenger clients are required to use XMPPS for instant messaging. This property can only be set at the system level and it controls all instant messaging connections. When this property is set to true, non-SSL XMPP listening ports are completely disabled. Setting this property to false allows both XMPP and XMPPS listening ports to function, and individual clients can choose which option to use. The default setting for IMSSLRequiredForXMPP is true. The value of this setting has no effect when RTCSSLSupportEnabled is set to false.

> **Note:** An administrator can mandate that some or all pages use HTTPS, based on Oracle Application Server 10*g* controls. Oracle strongly recommends that an administrator make sure that the Oracle10*g*AS Single Sign-On access is done using HTTPS.

In addition to setting properties to require SSL communications, you also must set properties to identify the location and password of the Oracle Wallet.

See the *Oracle Collaboration Suite Security Guide* for step-by-step instructions to set up SSL-based communications on Oracle Real-Time Collaboration and all Oracle Collaboration Suite components.

RTCSSLSupportEnabled

Description: Enables the conference run-time SSL for the entire Oracle Real-Time Collaboration system.

Default Value: false

Valid Value: false, true

Scope: system

Example: To enable and require SSL communications, enter:

```
rtcctl> setProperty -system true -pname RTCSSLSupportEnabled -pvalue true
```

IMSSLRequiredForXMPP

Description: Requires XMPPS connections for all instant messages exchanged between Oracle Messenger clients.

Default Value: true

Valid Value: false, true

Scope: system

Example: To require XMPPS connections for all messages sent using the Oracle Messenger client, enter the following:

```
rtcctl> setProperty -system true -pname IMSSLRequiredForXMPP -pvalue true
```

SSLRequiredForMeetings

Description: Requires HTTPS connections for all Web conferences.

Default Value: true

Valid Value: false, true

Scope: system, site, site-user

Example: To require that conferences use HTTPS by default, but allow administrators to override this setting for a site or users to override this setting when scheduling conferences, enter:

```
rtcctl> setProperty -system true -pname SSLRequiredForMeetings -pvalue true -force
false
```

SSLCertificateHostname

Description: This property configures Oracle Real-Time Collaboration to accept a name in the SSL certificate that does not match the name used to connect to the Oracle Real-Time Collaboration system.

By default, this property is not set, and the console expects the certificate to match ApacheWebHost. This is a typical configuration for Apache servers, where each server has its own SSL certificate and the certificate name matches ApacheWebHost.

By allowing different names to be set using SSLCertificateHostname, a deployment can choose whether to use a single certificate that is shared across all application tiers, use individual certificates for each application tier, or some other configuration. For example, to use a single SSL certificate for all servers, SSLCertificateHostname can be set to GlobalWebHost, so that the Apache servers and the load balancer could share a common SSL certificate.

 Default Value: none

Valid Value: any valid string for an SSL certificate name (for example, a host name or IP address).

Scope: system, instance

Example:

```
rtcctl> setProperty -system true -pname SSLCertificateHostname -pvalue
"conference-server.mycompany.com"
```

WalletLocation

Description: The Multiplexer and the Connection Manager can use the same wallet that the Oracle HTTP Server uses or they can use separate wallets if desired. The wallet must either be in "Auto Login mode", or the WalletPassword property must be set. Use the Oracle Wallet Manager to enable "Auto Login mode" for the wallet. The value of the WalletLocation property should be the path to the wallet files.

The mx, connmgr, rdtr, and confsvr components need to be set in order to completely configure an SSL setup.

> **See Also:**   *Oracle Application Server Administrator's Guide* for more information about how to use Oracle Wallet Manager.

Default Value: Default Value is unset, in which case the location $ORACLE_HOME/Apache/Apache/conf/ssl.wlt/default is used.

Valid Value: The "$ORACLE_HOME/imeeting" relative path of the wallet.

Scope: component

Example:

```
rtcctl> setProperty -cId 1010506 -pname WalletLocation -pvalue
"/ocshome/Apache/Apache/conf/ssl.wlt/ocswallet"
```

WalletPassword

Description: As an alternative to "Auto Login mode", Oracle Real-Time Collaboration can use a wallet password to access your SSL wallet. The password needed to access the wallet must be obfuscated in the context of the user account that will execute Oracle Real-Time Collaboration processes using the `iasobf` command.

Valid Value: obfuscated password for the wallet user

Scope: instance, component

Example:

1. Obfuscate the password (oracle1) for the wallet user by entering the following on the Oracle HTTP Server:

    ```
    $ORACLE_HOME/Apache/Apache/bin/iasobf -p oracle1 root
    ```

    The result is a Hex- encoded string, such as 03421BAB7EC4DFBD304495A4D56D541030CE4F7BB1DCA48C5.

2. Take the resulting obfuscated value and set the WalletPassword property:

    ```
    rtcctl> setProperty -pname WalletPassword -pvalue hex_encoded_string
    ```

How Properties Affect User Controls to Set Secure Connections

If SSL has been enabled (but not required) for conferences, users can choose regular or SSL conferences in the **Schedule** tab from the Oracle Real-Time Collaboration Web Client. When setting preferences in the Web client, a user can require use of the secure mode for all attendees in the conferences that the user creates.

If SSL has been enabled (but not required) for messaging, the servlet that supports Oracle Messenger connections will automatically attempt to make HTTPS connections (or XMPPS connections, if IMXMPPDirectConnEnabled is set to *true*) before trying standard HTTP or XMPP connections. Each user should have the **Connection** option in the **Options** dialog box (available from the **Tools** menu) set to "Automatic Configuration for RTC Connection." This is the default setting.

If SSL has been required for Web conferencing and instant messaging, all connections are SSL by default. Users cannot change the options mentioned here, because the only option available is SSL.

Disabling File Exchange in Oracle Messenger

The following property controls whether or not users can use the File Exchange feature in Oracle Messenger to transfer files. Since the File Exchange feature transfers files non-securely, you may want to disable this feature. Setting this property will only affect subsequent downloads of the Oracle Messenger client; it has no affect for already installed Oracle Messenger clients.

FileTransferEnabled

Description: Enables or disables the Oracle Messenger File Exchange feature. By default, this feature lets Oracle Messenger users transfer files, but files are transferred non-securely. Setting this property to false will disable the File Exchange feature. You must set this property before users download the Oracle Messenger client.

Default Value: true

Valid Value: false, true

Scope: system

Example: To disable the Oracle Messenger File Exchange feature, enter:

```
rtcctl> setProperty -system true -pname FileTransferEnabled -pvalue false
```

Enabling Anonymous Chat Conferences in Oracle Messenger

An Oracle Messenger chat conference is a text-based chat session in which multiple contacts are invited by a moderator to participate in a single chat window. By default, moderators cannot create anonymous chat conferences. In an anonymous chat conference, participants are identified by nicknames instead of their Oracle Internet Directory user names.

If you want to allow moderators to create anonymous chat conferences, you must set the AnonymousChatConferenceEnabled property to true. Moderators will then have the option of making a chat conference anonymous as follows: In the Chat Conferencing window, the conference moderator must open the Configuration dialog box by choosing **Actions**, then choosing **Administrator**, and then choosing **Configure Conference**. In the Configuration dialog box, the moderator must select the option **Allow conference participants to be anonymous**.

Keep in mind that even in an anonymous chat conference, participants are not truly anonymous. A malicious user may be able to determine the Oracle Internet Directory user names of participants.

AnonymousChatConferenceEnabled

Description: Allows or prevents chat conference moderators from creating anonymous Oracle Messenger chat conferences. By default, anonymous chat conferences are disabled. Setting this property to true will allow moderators to create anonymous chat conferences.

Default Value: false

Valid Value: false, true

Scope: system

Example: To enable the anonymous chat conference feature in Oracle Messenger, enter:

```
rtcctl> setProperty -system true -pname AnonymousChatConferenceEnabled -pvalue true
```

Preventing Guest User Access

You can prevent any **nonregistered user** (users who are not members of the Oracle Internet Directory) from using Oracle Real-Time Collaboration features. If you set the GuestUserAccessEnabled property to false, then:

- The Archive tab, the Conferences in Progress, Scheduled Conferences, and New User sub-tabs, and the Join Conference area are removed from the prelogin Home page.

- Instant conferences default to the "Registered Users" audience setting. (The normal default is for Instant conferences to be available to "All Users.")

- Registered users scheduling conferences cannot choose the "All Users" audience setting to allow guest users.

- When conference hosts publish URLs to let users join a conference, play back a conference, download the conference recording, or view conference summary and details, users who access those URLs must log in before they can do any of these tasks.

- Oracle Real-Time Collaboration Integration Services prevent other scheduling applications from scheduling a conference that allows guest users. Such applications include both Oracle Collaboration Suite components such as Oracle Calendar, and any integrated applications that call Oracle Real-Time Collaboration APIs.

- Oracle Real-Time Collaboration Integration Services will not support nonregistered users in chats. Therefore, integrations to support a "live help" scenario, allowing guest users to chat with users of Oracle Messenger, will not work.

> **Note:** If GuestUserAccessEnabled is set to false, and you are using Oracle Calendar to schedule Web conferences, then you may need to set the allowguestusers parameter in Oracle Calendar. See Chapter 3, "Calendar Server Parameters" of *Oracle Calendar Reference Manual* for more details.

GuestUserAccessEnabled

Definition: Allows or prevents any **nonregistered user** from using any Oracle Real-Time Collaboration features.

Default Value: true

Valid Value: true, false

Scope: site, system

Example: To prevent any unauthenticated users from using this Oracle Real-Time Collaboration system at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname GuestUserAccessEnabled -pvalue false
```

UserProvisioningEnabled

Description: Allows or prevents Oracle Collaboration Suite users from using Oracle Real-Time Collaboration. If this property is set to false, all users are able to access Oracle Real-Time Collaboration. If this property is set to true (the default), only users who are provisioned for Oracle Real-Time Collaboration are able to use it.

Default Value: true

Valid Value: true, false

Scope: system

Example: To allow all Oracle Collaboration Suite users to use Oracle Real-Time Collaboration, enter:

```
rtcctl> setProperty -system true -pname UserProvisioningEnabled -pvalue false
```

Allowing Persistent Passwords in Oracle Messenger

The Oracle Messenger client requires users to sign in. By default, users are always prompted for a password. You can set the RememberPasswordEnabled property to let users check a box to have the client remember their passwords.

> **Note:** Allowing the client to remember a user's password may be considered a security issue at your site.

RememberPasswordEnabled

Description: If true, a prompt appears in the sign in dialog for Oracle Messenger allowing users to check a box to have the client remember their password. If false, the prompt does not appear, and users must always enter their passwords when signing in.

Default Value: false

Valid Values: false, true

Scope: system, site

Example: To let users choose to have the client remember their password when logging in to Oracle Messenger, enter:

```
rtcctl> setProperty -system true -pname RememberPasswordEnabled -pvalue true
```

Enabling Integration Services

The Oracle Real-Time Collaboration Integration Services let you programmatically access any of the Oracle Real-Time Collaboration features. By default, all of these services are available for programs to access. You may want to prevent access to some of the services, however, for security reasons. The properties in this section let you control access to any of the Oracle Real-Time Collaboration Integration Services.

For an overview of how to enable Integration Services on an Oracle Real-Time Collaboration site, see "Integrating Applications with a Site" on page 8-2. For more details about using Integration Services, see the *Oracle Real-Time Collaboration Application Developer's Guide*.

AuthSessionEnabled

Description: Controls whether programs accessing Integration Services can request an authentication session token. If applications cannot get a token, they cannot use Integration Services.

Default Value: true

Valid Values: true, false

Scope: site-user

Example: To prevent programs accessing Integration Services from getting an authentication session token from site 1010506, thus disabling access to Integrated Services for that site, enter:

```
rtcctl> setProperty -siteId 1010506 -pname AuthSessionEnabled -pvalue false
```

To set this property for a user, use -siteId 0 and enter:

```
rtcctl> setProperty -siteId 0 -pname AuthSessionEnabled -pvalue false -userID
"orcladmin"
```

To get this property for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname AuthSessionEnabled -userID "-1"
```

To get this property for a user, use -siteId 0 and enter:

```
rtcctl> getProperty -siteId 0 -pname AuthSessionEnabled -userID "orcladmin"
```

ConfigurationServiceEnabled

Description: Controls access to the Configuration Service. The service lets clients query and update configuration information from an Oracle Real-Time Collaboration deployment. For example, the service lets clients obtain and modify configuration settings such as whether a conference key is required for conferences at this site, or query Integration Service catalog information such as the supported versions of web services at this deployment.

Default Value: true

Valid Values: true, false

Scope: site-user

Example: To allow access to the Configuration Service at site 101304, enter:

```
rtcctl> setProperty -siteId 101304 -pname ConfigurationServiceEnabled -pvalue true
```
To set this property for a user, use -siteId 0 and enter:

```
rtcctl> setProperty -siteId 0 -pname ConfigurationServiceEnabled -pvalue true
-userID "orcladmin"
```

To get this property for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname ConfigurationServiceEnabled -userID
"-1"
```

To get this property for a user, use -siteId 0 and enter:

```
rtcctl> getProperty -siteId 0 -pname ConfigurationServiceEnabled -userID
"orcladmin"
```

EmbeddablePresenceEnabled

Description: Controls access to the Embeddable Presence service. The **Embeddable Presence** tab on the **Preferences** page lets users download snippets of code that they can paste at the end of an e-mailed message or add to the HTML created for a custom Web page. If a user embeds presence information in a Web page, any colleagues reading the page can see the user's availability and click a link to start a chat session (provided they have Oracle Messenger).

Default Value: true

Valid Values: true, false

Scope: site-user

Example: To prevent access to Embeddable Presence at site 101304, enter:

```
rtcctl> setProperty -siteId 101304 -pname EmbeddablePresenceEnabled -pvalue false
```

With this property set to false, users at site 101304 will not be able to access to the **Embeddable Presence** tab under **Preferences**.

To set this property for a user, use -siteId 0 and enter:

```
rtcctl> setProperty -siteId 0 -pname EmbeddablePresenceEnabled -pvalue false
-userID "orcladmin"
```

To get this property for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname EmbeddablePresenceEnabled -userID "-1"
```

To get this property for a user, use -siteId 0 and enter:

```
rtcctl> getProperty -siteId 0 -pname EmbeddablePresenceEnabled -userID "orcladmin"
```

EmbeddablePresenceGuestChatEnabled

Description: Controls whether **nonregistered users** can start a chat session from any embedded presence created using the Embeddable Presence service controlled by the EmbeddablePresenceEnabled property.

> **Note:** If EmbeddablePresenceEnabled is set to *true*, then EmbeddablePresenceGuestChatEnabled is automatically set to *true* as well.

Default Value: false

Valid Values: true, false

Scope: site-user

Example: To allow nonregistered users to chat with users at site 104356 through embedded presence icons or links, enter:

```
rtcctl> setProperty -siteId 104356 -pname EmbeddablePresenceGuestChatEnabled
-pvalue true
```

To set this property for a user, use -siteId 0 and enter:

```
rtcctl> setProperty -siteId 0 -pname EmbeddablePresenceGuestChatEnabled -pvalue
true -userID "orcladmin"
```

To get this property for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname EmbeddablePresenceGuestChatEnabled
-userID "-1"
```

To get this property for a user, use -siteId 0 and enter:

```
rtcctl> getProperty -siteId 0 -pname EmbeddablePresenceGuestChatEnabled -userID
"orcladmin"
```

You can set EmbeddablePresenceEnabled to true, to allow use of embeddable presence, and still set EmbeddablePresenceGuestChatEnabled to false to prevent unregistered access.

PostConferenceServiceEnabled

Description: Controls access to the Post-Conference Management Services, which can get or set the publish options for a finished conference, and get the URL for playing back any recorded conferences.

Default value: true

Valid Values: true, false

Scope: site-user

Example: To allow access to post-conference services at site 102345, enter:

```
rtcctl> setProperty -siteId 102345 -pname PostConferenceServiceEnabled -pvalue
true
```

To set this property for a user, use -siteId 0 and enter:

```
rtcctl> setProperty -siteId 0 -pname PostConferenceServiceEnabled -pvalue true
-userID "orcladmin"
```

To get this property for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname PostConferenceServiceEnabled -userID
"-1"
```

To get this property for a user, use -siteId 0 and enter:

```
rtcctl> getProperty -siteId 0 -pname PostConferenceServiceEnabled -userID
"orcladmin"
```

PreConferenceServiceEnabled

Description: Controls access to the Conference Management Services, which include the Schedule Conference, Update Conference, Delete Conference, and List Upcoming Conferences services. Administrators can also set this property by choosing **Details** next to a site on the **Sites** page, then choosing **Privileges** and setting "Allow access to conference management features?" to **No**.

Default Value: true

Valid Values: true, false

Scope: site-user

Example: To allow access to Conference Management services at site 101304, enter:

```
rtcctl> setProperty -siteId 101304 -pname PreConferenceServiceEnabled -pvalue true
```

To set this property for a user, use -siteId 0 and enter:

```
rtcctl> setProperty -siteId 0 -pname PreConferenceServiceEnabled -pvalue true
-userID "orcladmin"
```

To get this property for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname PreConferenceServiceEnabled -userID
"-1"
```

To get this property for a user, use -siteId 0 and enter:

```
rtcctl> getProperty -siteId 0 -pname PreConferenceServiceEnabled -userID
"orcladmin"
```

PresenceServiceEnabled

Description: Controls access to the Presence Services, which can determine the status of individuals or of a list of entities, or display presence information in a web application. Administrators can also set this property by choosing **Details** next to a site on the **Sites** page, then choosing **Privileges** and setting "Allow access to presence information for a user or group?" to **No**.

Default Value: false

Valid Values: true, false

Scope: site-user

Example: To allow access to the Presence Service at site 101304, enter:

```
rtcctl> setProperty -siteId 101304 -pname PresenceServiceEnabled -pvalue true
```

To set this property for a user, use -siteId 0 and enter:

```
rtcctl> setProperty -siteId 0 -pname PresenceServiceEnabled -pvalue true -userID
"orcladmin"
```

To get this property for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname PresenceServiceEnabled -userID "-1"
```

To get this property for a user, use -siteId 0 and enter:

```
rtcctl> getProperty -siteId 0 -pname PresenceServiceEnabled -userID "orcladmin"
```

ReportingServiceEnabled

Description: Controls access to Reporting Services, which can report the conference attendee list, details of a finished conference, or list finished conferences by date or by conference ID.

Default Value: true

Valid Values: true, false

Scope: site-user

Example: To prevent applications from accessing any Reporting Services from site 102345, enter:

```
rtcctl> setProperty -siteId 102345 -pname ReportingServiceEnabled -pvalue false
```

To set this property for a user, use -siteId 0 and enter:

```
rtcctl> setProperty -siteId 0 -pname ReportingServiceEnabled -pvalue false -userID
"orcladmin"
```

To get this property for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname ReportingServiceEnabled -userID "-1"
```

To get this property for a user, use -siteId 0 and enter:

```
rtcctl> getProperty -siteId 0 -pname ReportingServiceEnabled -userID "orcladmin"
```

SiteGuestChatEnabled

Description: Controls whether **nonregistered user**s can be allowed to chat through any programmatic access. Administrators can also set this property by choosing **Details** next to a site on the **Sites** page, then choosing **Privileges** and setting "Allow guest users (nonregistered users) to chat?" to **No**.

> **Note:** Setting this property to *false* prevents any integration that lets guest users chat, such as a Live Help scenario.

Default Value: false

Valid Values: true, false

Scope: site

Example: To allow access to chat by nonregistered users of an integrated service at site 101304, enter:

```
rtcctl> setProperty -siteId 101304 -pname SiteGuestChatEnabled -pvalue true
```

WebServiceEnabled

Description: Controls whether the base servlet used by all Web Services is available. Setting this property to false will *disable* all of the following Oracle Real-Time Collaboration features:

- *All* Integration Services

- Integration with Oracle Calendar

- Integration with Oracle Collaborative Portlets

- Integration with Oracle Workspaces

- Oracle Real-Time Collaboration Add-In for Microsoft Office

- Oracle Messenger integration to Oracle Web Conferencing

> **Caution:** If you want the preceding features to function, you must leave the WebServiceEnabled property set to *true*.

Default Value: true

Valid Values: true, false

Scope: system

Example: To allow other Oracle Collaboration Suite applications and Oracle Real-Time Collaboration features to access Oracle Real-Time Collaboration Integration Services, enter:

```
rtcctl> setProperty -system true -pname WebServiceEnabled -pvalue true
```

Configuring Clusters

As mentioned in "Oracle Real-Time Collaboration Hierarchy" on page 1-16, you can create clusters of Oracle Real-Time Collaboration core components. You do so by assigning separate InstanceLocation properties to a set of components. For example, if components A and B have an InstanceLocation of U.S., and components C and D have an InstanceLocation of India, you have two clusters, one labeled U.S. and one labeled India.

Instances containing the Voice Conversion Server and Document Conversion Server can also be clustered by assigning them an InstanceLocation that matches the location of the Oracle Real-Time Collaboration core components you want them to serve.

If an instance containing a Voice or Document Conversion Server needs to serve multiple locations, assign it the AdditionalLocationsServed property.

AdditionalLocationsServed

Description: Sets a list of locations to which a Voice Conversion or Document Conversion Server instance will provide service.

Default Value: default

Valid Value: An array of cluster names, in the format: "[\"cluster1\", \"cluster2\"]"

Scope: instance

Example: To have a Document and Voice Conversion Server instance provide service to instances with locations U.S. and U.K., enter:

```
rtcctl> setProperty -pname AdditionalLocationsServed -pvalue "[\"U.S.\",
\"U.K.\"]"
```

InstanceLocation

Description: Sets the location of an instance. All core services in a particular location are considered for load balancing.

Default Value: default

Valid Value: Any string

Scope: instance

Example: To set the location for an instance to U.S., enter:

```
rtcctl> setProperty -pname InstanceLocation -pvalue "U.S."
```

Configuring the Oracle Real-Time Collaboration Web Client Pages

The properties in this section let you customize various elements of the Oracle Real-Time Collaboration Web Client, including the Web site appearance and the defaults available to users as they schedule conferences. This section contains the following topics:

- Customizing the Web Client Page Colors

- Customizing the Oracle Real-Time Collaboration Home Pages

- Configuring Tables

- Configuring the Enrollment and Join Conference Dialogs

- Customizing the Privacy Statement Link

- Suppressing the Schedule Tab if Oracle Calendar is Used

- Configuring the Quicklinks Bin

- Requiring Users to Provide a Conference Key For All Conferences

Customizing the Web Client Page Colors

The colors used in the Oracle Collaboration Suite web pages are controlled by an XSS stylesheet provided by Oracle. There are two stylesheets shipped with Oracle Collaboration Suite.

- ocs.xss: A stylesheet that uses various shades of blue.

- blaf.xss: A stylesheet that uses various shades of gold, tan, and blue. (This stylesheet was used in previous releases of Oracle Collaboration Suite.)

By default, Oracle Collaboration Suite 10*g* Release 1 (10.1.2) is shipped referencing the ocs.xss stylesheet. You can change your Oracle Real-Time Collaboration configuration files to use the blaf.xss file instead, if preferred. To do so, edit the uix-config.xml file as follows:

1. Open the $ORACLE_HOME/j2ee/OC4J_ imeeting/applications/imeeting/imtapp/WEB-INF/uix-config.xml file in a text editor.

2. Edit the following line to point to the stylesheet you want to use:

```
<style-sheet-name>blaf.xss</style-sheet-name>
```

Customizing the Oracle Real-Time Collaboration Home Pages

The following properties let you customize the pages users use to log in to Oracle Real-Time Collaboration. You can change the logo graphic shown at the top of all Web client pages, and change messages shown on the page seen before users log in to Oracle Real-Time Collaboration. You can also customize whether icons appear for the links at the top of the Web Client pages. You can use the properties described in this section to customize either the entire Oracle Real-Time Collaboration system, or a site you create for a department or line of business within your company.

AddInDownloadEnabled

Description: Controls whether the link to download the Oracle Real-Time Collaboration Add-In for Microsoft Office appears on the Home page and on the New User page.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To remove the link to download the Oracle Real-Time Collaboration Add-In for Microsoft Office from the Home page and the New User page for your site, ID 104056, enter:

```
rtcctl> setProperty -pname AddInDownloadEnabled -siteId 104056 -pvalue false
```

CorpImageName

Description: The name of the corporate logo file that displays at the top of each of the Web client pages for this system or site, representing your company or organization. Set this property on each Applications tier.

Default Value: oracle_ocs_corp.gif

Valid Value: Any .GIF, .JPG, or other browser-compatible file, assumed to be stored in $ORACLE_HOME/imt/app/res/media.

Scope: system, site

Example: To display a logo on your site, ID 104056, from a file located in the $ORACLE_HOME/bigcompany/custom directory on the core components instance, enter:

```
rtcctl> setProperty -pname CorpImageName -siteId 104056 -pvalue
"../../../../bigcompany/custom/sales_logo.gif"
```

Note that the path name to the file is given relative to the assumed path, which is $ORACLE_HOME/imt/app/res/media.

DateFormat

Description: Controls the format of dates shown in all tables in the Oracle Real-Time Collaboration Web Client pages.

Default Value: "dd-MMM-yyyy h:mm a"

Valid Value: any valid `Java date format` string, enclosed in quotes

Scope: system

Example: To set the format for all dates on the system to show the month first, followed by date, year, hour, minute, and am or pm, enter:

```
rtcctl> setProperty -pname DateFormat -pvalue "MMM-dd-yyyy h:mm a"
```

ListInstantConference

Description: If true, any instant conference created by a user will appear in that user's My Conferences list, and in the public Conferences in Progress list. This property is typically used for organizations that want to quickly create a conference and make it available to both **registered user**s and **nonregistered user**s from their company conferencing Web site.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To set site 104056 so that all instant conferences are published in the public conferences list, enter:

```
rtcctl> setProperty -siteId 104056 -pname ListInstantConference -pvalue true
```

MessengerDownloadEnabled

Description: Controls whether the link to download Oracle Messenger appears on the Home page and on the New User page.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To remove the link to download Oracle Messenger from the Home page and the New User page for your site, ID 104056, enter:

```
rtcctl> setProperty -pname MessengerDownloadEnabled -siteId 104056 -pvalue false
```

NewUserInstructionText

Description: The message that appears on the prelogin page next to the **New User** button.

Default Value: "New users should run the New User Test at least once to make sure that the machine they use to join a conference is compatible with Oracle Web Conferencing. Click Troubleshoot to run advanced diagnostics or solve additional compatibility issues."

Valid Value: Any text, enclosed in quotation marks.

Scope: system, site

Example: To set the text next to the **New User** button for your sales site, ID 104056, enter:

```
rtcctl> setProperty -pname NewUserInstructionText -siteId 104056 -pvalue "Click
New User to make sure your machine is compatible with Big Company Real-Time
Collaboration."
```

PreLoginMessage

Description: Sets the text of a message that appears under the login link on the login page.

Default Value: none

Valid Value: Any text, enclosed in quotation marks.

Scope: system, site

Example: To set the login link text for your sales site, ID 104056, enter:

```
rtcctl> setProperty -system true -pname PreLoginMessage -pvalue "Enter your Big
Company e-mail name and password to log in."
```

ShowGblButtonImage

Description: Displays icons in addition to the four text links at the top of the Web client pages. The text links are: Login (or Logout), Contact Us, Preferences, and Help. Whether this option is true or false, the text links themselves always remain on the page.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To display icons for the text links, enter:

```
rtcctl> setProperty -pname ShowGblButtonImage -pvalue true
```

WelcomeHeaderDescText

Description: The descriptive paragraph on the prelogin page that explains the purpose of Oracle Real-Time Collaboration tools.

Default Value: "Oracle Real-Time Collaboration provides a real-time collaboration environment for your conferences."

Valid Value: Any text, enclosed in quotation marks.

Scope: system, site

Example: To display a message for your sales employees on your site, ID 104056, explaining how they might use Oracle Real-Time Collaboration features, enter:

```
rtcctl> setProperty -pname WelcomeHeaderDescText -pvalue "Use this site to conduct
sales conferences with Big Company customers and employees. Click Login to
schedule new conferences or view conference records. Click New User to download an
instant messaging tool."
```

WelcomeHeaderText

Description: The text of a heading that appears preceding the WelcomeHeaderDescText on the prelogin page.

Default Value: "Welcome to Oracle Real-Time Collaboration"

Valid Value: Any text, enclosed in quotation marks.

Scope: system, site

Example: To display a heading listing your company's name on the prelogin page for Oracle Real-Time Collaboration for your site, ID 104056, enter:

```
rtcctl> setProperty -pname WelcomeHeaderText -pvalue "Welcome to Big Company
Real-Time Collaboration"
```

Configuring Tables

Use the MaxTableRows property to specify the maximum number of rows for tables that appear in the Oracle Real-Time Collaboration Web client pages.

MaxTableRows

Description: Controls the number of rows that appear in any tables shown on Oracle Real-Time Collaboration Web client pages.

Default Value: 1000

Valid Value: -1 to display all meetings, or any positive integer.

Scope: user

Example: To set the maximum number of rows shown in tables on all of the Oracle Real-Time Collaboration Web client pages to 30, enter:

```
rtcctl> setProperty -pname MaxTableRows -pvalue 30
```

Configuring the Enrollment and Join Conference Dialogs

A host can schedule an **enrollable conference**. To participate in such a conference, attendees must complete an enrollment form with their name, address, company, e-mail address, and telephone. Hosts can use this feature to track information about attendees to sales presentations, web seminars or online training, or any other company presentation that includes a number of attendees from outside your company.

By default, a **registered user** who is logged in can optionally complete the following fields when enrolling:

Company name
Address
Telephone

If the registered user is not logged in, the preceding fields are required.

A **nonregistered user** must complete the following fields when enrolling (they are required):

First name
Last name
E-mail address
Company name
Address
Telephone

You cannot change these fields; they are the enrollment defaults for every Oracle Real-Time Collaboration system.

The EnrollmentInfoText property lets you add more optional fields to the enrollment form. The property can be set at the system or the site level, but it is best to use it at the site level, to avoid creating new fields that affect all enrollable conferences on this system.

EnrollmentInfoText

Description: Defines an array of fields that users may complete when entering a conference that requires them to enroll. These fields are in addition to the default fields for name, address, phone, and e-mail account.

Default Value: none

Valid Value: An array specifying one or more fields, in the format: "[\"field1\", \"field2\"]"

Scope: system, site

Example: To add two new fields requesting the size of the attendee's company and the attendee's job title for enrollment conferences hosted by your Sales site (ID 1023251), enter:

```
rtcctl> setProperty -pname EnrollmentInfoText -siteID 1023251 -pvalue "[\"Company Size\", \"Job Title\"]"
```

Note that because all additional fields are defined in a single array, if you need to remove or change a field, you must remember to include the rest of the fields in the edit. For example, if you had defined the Company Size and Job Title fields as described earlier, and then decide you want to change "Job Title" to "Occupation," you would enter the following:

```
rtcctl> setProperty -pname EnrollmentInfoText -siteID 1023251 -pvalue "[\"Company Size\", \"Occupation\"]"
```

Customizing the Privacy Statement Link

In order to meet regulations regarding the capture and storage of personal data such as recorded conversations in Web conferences or archived chat messages, you can display a corporate privacy statement or acceptable use policy to your users regarding how long conference or message details are stored, whether consents are required for recording information, and so forth. A message giving examples of the types of issues to be considered when creating a privacy statement ships with Oracle Real-Time Collaboration; this statement is available if you click the **Privacy Statement** link at the bottom of the Oracle Real-Time Collaboration Web Client pages. You can choose to point this link to a statement your company creates, or to suppress display of the link.

PrivacyLink

Description: Sets the URL to which the privacy link points.

Default Value: cmn_privacy.uix

Valid Value: Any valid URL, either a relative link from the Web client home or an absolute link in the format http://www.site.com/filename.html

Scope: system, site

Example: To set the privacy link to go to the Web page www.mycompany.com/legal/privacy.html, enter:

```
rtcctl> setProperty -system true -pname PrivacyLink -pvalue "www.mycompany.com/legal/privacy.html"
```

ShowPrivacyLink

Description: Sets whether the privacy link appears at the bottom of the Web client pages.

Default Value: true

Valid Value: false, true

Scope: system, site

Example: To suppress the privacy link for site ID 123456, enter:

```
rtcctl> setProperty -siteID 123456 -pname ShowPrivacyLink -pvalue false
```

Suppressing the Schedule Tab if Oracle Calendar is Used

If your company uses both Oracle Calendar and Web Conferencing, you may want to require users to schedule conferences solely through the calendar. To do so, you set the following property to prevent the **Schedule** tab from appearing on the Oracle Real-Time Collaboration Web Client pages. This property can be set at the system and site level. For example, you may wish to set this property to true at the system level, and then set this property to false for some individual sites (as long as the property is not set to -force true at the system level).

IsCalendarOCSInstalled

Description: Sets whether the **Schedule** tab appears.

Default Value: false

Valid Value: false, true

Scope: system, site

Example: To prevent the **Schedule** tab from appearing at site 1010506, so that users must schedule Web conferences using Oracle Calendar, enter the following:

```
rtcctl> setProperty -siteId 1010506 -pname IsCalendarOCSInstalled -pvalue true
```

Configuring the Quicklinks Bin

You can make commonly used URLs easily accessible by adding them to the Quicklinks bins on the Oracle Real-Time Collaboration prelogin and home pages. You can add four user-defined links to this bin, setting the link names and URLs with the following properties.

For example, you may want to set one of the links to the Oracle Real-Time Collaboration Troubleshooting and Frequently Asked Questions documents on the Oracle Technology Network, at http://www.oracle.com/technology/products/cs/user_info/ortc/index.html.

PreQuicklinkNName

Description: Sets the name of a Quicklink on the prelogin page, where N is any number from 1 through 4.

Default Value: Quicklink1, Quicklink2, Quicklink3, Quicklink4

Valid Value: Any string.

Scope: system, site

Example: To configure the first user-defined link to be called "Oracle Real-Time Collaboration FAQ," enter:

```
rtcctl> setProperty -system true -pname Quicklink1Name -pvalue "Real-Time
Collaboration FAQ"
```

PreQuicklinkNURL

Description: Sets the URL associated with PreQuicklinkNName, where N is any number from 1 through 4.

Default Value: none

Valid Value: Any valid URL.

Scope: system, site

Example: To configure the first user-defined link to jump to the Oracle Real-Time Collaboration FAQ Web site on the public Oracle Technology Network Web site, enter:

```
rtcctl> setProperty -system true -pname Quicklink1URL -pvalue
"http://www.oracle.com/technology/products/cs/user_info/ortc/index.html"
```

QuicklinkNName

Description: Sets the name of a Quicklink on the home page, where N is any number from 1 through 4.

Default Value: Quicklink1, Quicklink2, Quicklink3, Quicklink4

Valid Value: Any string.

Scope: system, site

Example: To configure the first user-defined link to be called "Oracle Real-Time Collaboration FAQ," enter:

```
rtcctl> setProperty -system true -pname Quicklink1Name -pvalue "Real-Time
Collaboration FAQ"
```

QuicklinkNURL

Description: Sets the URL associated with QuicklinkNName, where N is any number from 1 through 4.

Default Value: none

Valid Value: Any valid URL

Scope: system, site

Example: To configure the first user-defined link to jump to the Oracle Real-Time Collaboration FAQ Web site on the public Oracle Technology Network Web site, enter:

```
rtcctl> setProperty -system true -pname Quicklink1URL -pvalue
"http://www.oracle.com/technology/products/cs/user_info/ortc/index.html"
```

> **Note:**   If the value associated with any of the Quicklinks is null, then that link does not appear in the Quicklinks bin.

Requiring Users to Provide a Conference Key For All Conferences

By default, users are not required to specify a conference key when scheduling conferences or creating instant conferences. You must use the ConferenceKeyRequired property to require users to provide a conference key for all conferences hosted at a particular site.

ConferenceKeyRequired

Description: Controls whether or not all conferences require a conference key.

Default Value: false

Valid Value: false, true

Scope: system, site

Example: To mandate that all conferences hosted at site 1010506 must require a conference key, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConferenceKeyRequired -pvalue true
```

Configuring E-mail Invitations

The Oracle Real-Time Collaboration system can generate outbound e-mail for various purposes, such as inviting users to a conference, and can receive e-mail from users interacting with the Web client pages.

EmailEnabled

Description: Enables the sending of conference invitations in e-mail.

Default Value: false

Valid Value: false, true

Scope: system, instance

Example: To enable the ability to mail conference invitations for an entire system, enter:

```
rtcctl> setProperty -system true -pname EmailEnabled -pvalue true
```

SmtpHost

Description: The host name of the SMTP server Oracle Real-Time Collaboration should use to send e-mail.

Default Value: none

Valid Value: Any host name.

Scope: system, instance

Examples:

- To set the SMTP host for the whole system to mail-net.company.com, enter:

  ```
  rtcctl> setProperty -system true -pname SmtpHost -pvalue "mail-net.company.com"
  ```

- To set the SMTP host for the current instance to mail-net.company.com, enter:

  ```
  rtcctl> setProperty -pname SmtpHost -pvalue "mail-net.company.com"
  ```

SmtpPort

Description: The listen port of the SMTP server.

Default Value: 25

Valid Value: Any port ID.

Scope: system, instance

Examples:

- To set SmtpPort for the whole system to 3000, enter:

  ```
  rtcctl> setProperty -system true -pname SmtpPort -pvalue 3000
  ```

■ To set SmtpPort for the current instance to 3000, enter:

```
rtcctl> setProperty -pname SmtpPort -pvalue 3000
```

Configuring Web Conferences

You can configure some characteristics of a conference session using the following properties, either for an entire Oracle Real-Time Collaboration system, or for a conference held from a particular site.

Many of these properties affect individual users' preferences set using the **Preferences** command either from the Oracle Real-Time Collaboration Web Client pages or from the Web Conferencing console. Properties may also affect the options visible to users when they use the **Schedule** tab to schedule a conference. All of the properties affect the behavior of the conference console during a conference.

> **Note:** If you want to make sure that no site administrator can override these settings, and that no user can override any of these settings for a conference, use the `-force true` option when you set the property. See "Forcing Property Inheritance" on page 4-4 for details.

This section contains the following topics:

■ Configuring Conference Defaults

■ Configuring Sharing Options During a Conference

■ Configuring Conference Recording Options

■ Configuring Conference Chat Defaults

■ Configuring Attendee and Presenter Privileges

Configuring Conference Defaults

The following properties control some of the general defaults during a Web conference, such as whether console toolbars appear, or the URL of a Web page that appears after a conference has been completed. Later sections, such as "Configuring Sharing Options During a Conference" on page 3-39 or "Configuring Conference Recording Options" on page 3-41, describe additional properties to control defaults for specific conference tasks.

AttendeeStartUrl

Description: Lets you display a particular Web page to attendees as they enter a conference. Conference hosts will not see this Web page.

> **Note:** You can also set the AttendeeExitUrl property to display a Web page as attendees exit the conference. You typically do this if you are trying to gather feedback from attendees after the conference has ended. See "Configuring Requests for Feedback After Conferences" on page 3-47 for details.

Default Value: none

Valid Value: Any valid URL

Scope: system, site

Example: To display a Web page to conference attendees:

```
rtcctl> setProperty -siteId 1010506 -pname AttendeeStartUrl -pvalue
"http://mycompany.com/attendeeWelcome.html"
```

ConsoleAutoHide

Description: Sets whether the conference console should be automatically hidden when the conference begins. When the console is hidden, the host and attendees can display it by moving the mouse cursor to the top of the screen. It can be set to stay visible by clicking the **Pin** icon.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a specific meeting by choosing **Oracle Web Conferencing Console Options** under the **Schedule** tab, or set it as the default for all meetings they start using **Preferences** from the Web client pages. To set it, choose **Autohide**. If this property is set to true, the options is checked on by default in all of these pages.

Default Value: false

Valid Value: true, false

Scope: system, site

Example:

```
rtcctl> setProperty -siteId 1010506 -pname ConsoleAutoHide -pvalue true
```

> **Note:** Be careful when setting the ConsoleAutoHide property. If users do not see the conference console, they may not know that they have successfully entered a Web conference.

ConsoleExpandHelpText

Description: Allows or prevents users from expanding the Help text in the conference console. This is the Help text that appears at the bottom of the console bar when you click the question mark in the Web Conferencing console, not the Help page that appears when you click the Help button. The Help pages from the Help button are always available.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a specific meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, or set it as the default for all meetings they start using **Preferences** from the Web client pages. To set it, choose **Expand help text**. If this property is set to true, the option is set on by default on all of these pages.

Default Value: true

Valid Value: false, true

Scope: system, site

Example: To prevent expanded Help text from appearing in the conference console for meetings at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConsoleExpandHelpText -pvalue false
```

ConsoleExpandSecondRow

Description: Allows or prevents users from expanding the second row of icons and controls in the conference console. The second row includes the Network connection readout, security icon, and the Poll, Preferences, and Conference Details buttons.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a specific meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, or set it the default for all meetings they start using **Preferences** from the Web client pages. To set it, choose **Expand secondary row**. If this property is set to true, the option is set on by default on all of these pages.

Default Value: true

Valid Value: false, true

Scope: system, site

Example: To prevent the second row of icons from appearing in the conference console for meetings at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConsoleExpandSecondRow -pvalue false
```

EarlyJoinMinutes

Description: Sets the number of minutes before a conference's scheduled start time during which users can join. If users attempt to join earlier than the time set here, they receive a warning message telling them to join later.

Default Value: 30

Valid Value: Any positive integer.

Scope: system

Example: To configure this value to 15 minutes, enter:

```
rtcctl> setProperty -system true -pname EarlyJoinMinutes -pvalue 15
```

FirstAttendeeBehavior

Description: Sets whether the first attendee is prompted to be a presenter.

Default Value: Attendee

Valid Value: Attendee (the attendee is not a presenter), DesktopControl (the attendee can present).

Scope: system, site

Example: To set the first attendee to be prompted for presenter mode, enter:

```
rtcctl> setProperty -system true -pname FirstAttendeeBehavior -pvalue
DesktopControl
```

HostStartUrl

Description: Lets you display a particular Web page to the host as they enter a conference. Conference attendees will not see this Web page.

> **Note:** You can also set the HostExitUrl property to display a Web page as hosts exit the conference. You typically do this if you are trying to gather feedback from hosts after the conference has ended. See "Configuring Requests for Feedback After Conferences" on page 3-47 for details.

Default Value: none

Valid Value: Any valid URL

Scope: system, site

Example: To display a Web page to conference hosts:

```
rtcctl> setProperty -siteId 1010506 -pname HostStartUrl -pvalue
"http://mycompany.com/hostWelcome.html"
```

MtgNoHostShutdownEnabled

Description: If set to true, if no host enters the conference within180 seconds of the scheduled conference time, the conference is automatically ended. If set to false, a conference remains open for at least 30 minutes after the start time until a host appears.

Default Value: false

Valid Value: true, false

Scope: component

Example: To set the component with the component ID (cid) of 1010506 so that conferences will automatically close after 180 seconds if the host does not join, enter:

```
rtcctl> setProperty -cId 1010506 -pname MtgNoHostShutdownEnabled -pvalue true
```

Configuring Sharing Options During a Conference

These properties control whether users can use the different tools to share their desktop when hosting a conference. If one of the following properties is set to false, the icon for that sharing mode will not appear in the console and users will not be able to use that feature in the console.

ConferenceStartupMode

Description: Sets the default startup mode of the Oracle Web Conferencing Console when it loads.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, or set it as the default for all their meetings using **Preferences** from the Web client pages. To set it, choose Startup Mode. If this property is set, the setting appears on these pages by default.

Default Value: DesktopSharing

Valid Value: DocumentPresentation, Whiteboard, DesktopSharing

Scope: system, site

Example: To set conferences at site 1010506 to always start in DesktopSharing mode, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConferenceStartupMode -pvalue
DesktopSharing
```

EnableDesktopSharingMode

Description: Allows or prevents desktop sharing in conferences.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent Desktop Sharing mode for conferences at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname EnableDesktopSharingMode -pvalue false
```

EnableDocumentPresentationMode

Description: Allows or prevents document presentation in conferences.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent Document Presentation mode for conferences at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname EnableDocumentPresentationMode -pvalue
false
```

EnableVoice

Description: Allows or prevents attendees from participating in one- or two-way voice communications during a Web conference. If false, the voice icon does not appear in the console toolbar.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent users from participating in voice communications during a Web conference on site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname EnableVoice -pvalue false
```

EnableWhiteboardMode

Description: Allows or prevents using Whiteboard mode in conferences.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To allow Whiteboard mode for conferences at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname EnableWhiteboardMode -pvalue true
```

Configuring Conference Recording Options

The following properties control defaults for recording Web conferences. See "Controlling Archives" on page 3-52 for additional properties that control whether attendees can download or play back recordings from the conference archives.

AutomaticRecording

Description: If set to true, the conference is automatically recorded, starting as soon as the host enters. The host can still cancel or pause the recording by clicking the Record icon.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To set site 1010506 so that all Web conferences are recorded, enter:

```
rtcctl> setProperty -siteId 1010506 -pname AutomaticRecording -pvalue true
```

EnableRecording

Description: Allows or prevents the recording features from being available during a conference.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent attendees from recording a conference, enter:

```
rtcctl> setProperty -system true -pname EnableRecording -pvalue false
```

ShowRecordOption

Description: Displays an additional dialog as the host enters the conference, asking whether it should be recorded.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To add a dialog that appears as a host enters any conference hosted at site 1010506, prompting the host to record the conference, enter:

```
setProperty -siteId 1010506 -pname ShowRecordOption -pvalue true
```

Configuring Conference Chat Defaults

The conference host and attendees can hold chat sessions within a conference (these sessions are separate from the Oracle Messenger chat). The following properties let you configure the defaults for these chat sessions.

ChatEnabled

Description: Allows or prevents the Chat feature from being available during a conference. If this is property is set to false, you should not set ChatRowEnabled to true, otherwise attendees will still see the Chat row and be able to chat. If this property is set to false, the three Chat options in **Oracle Web Conferencing Console Options**

under the **Schedule** tab and under the **Preferences** pages for individual users will be greyed out and meeting hosts will not be able to select them.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent users at site 1010506 from using the Chat feature during a conference, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ChatEnabled -pvalue false
```

GroupChat

Description: Allows or prevents attendees from participating in a group chat during a conference.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Chat, click **Group Chat.** If this property is set to true, the option is checked on by default.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To allow attendees to participate in a group chat for any conference held at site 1010506, enter:

```
rtcctl> setProperty -pname GroupChat -pvalue true -siteID 1010506
```

GroupChatEnabled

Description: Allows or prevents the **Create Group Chat** button from appearing in the console.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent the Group Chat button from appearing in any conference held at site 1010506, enter:

```
rtcctl> setProperty -pname GroupChatEnabled -pvalue false -siteID 1010506
```

HostChat

Description: Allows or prevents attendees from starting a chat session with the host during a conference.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Chat, click **Host Chat.** If this property is set to true, the option is checked on by default.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent attendees in conferences at site 1010506 from clicking the **Host** tab in the Chat window to start a chat session with the conference host, enter:

```
rtcctl> setProperty -siteId 1010506 -pname HostChat -pvalue false
```

PublicChat

Description: Allows or prevents whether attendees can participate in a public chat during a conference.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Chat, click **Public Chat.** If this property is set to true, the option is checked on by default.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent attendees in conferences at site 1010506 from clicking the **Public** tab in the Chat window to start a chat session with other attendees, enter:

```
rtcctl> setProperty -siteId 1010506 -pname PublicChat -pvalue false
```

Configuring Attendee and Presenter Privileges

These properties control what attendees and presenters can do during a conference. Many can also be set using the **Preferences** command from the Oracle Real-Time Collaboration Web Client pages or from within the conference console, or when using the **Schedule** tab to schedule a meeting. See "Properties for Default Web Client and Conference Console Preferences" on page 3-6 for details.

AssignHostToGuestEnabled

Description: Allows or prevents whether a host can assign a **nonregistered user** to become a host when the original host leaves the conference. If false, nonregistered users cannot be granted the right to host a conference.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To allow a host to grant host privileges to a nonregistered user when the original host leaves in conferences on site 123456, enter:

```
setProperty -siteId 123456 -pname AssignHostToGuestEnabled -pvalue true
```

> **Note:** Allowing a host to grant host privileges to a nonregistered user may be considered a security issue at your site.

ConsoleAttendeeControlLayout

Description: Allows or prevents attendees from changing the console appearance (using the Preferences button) during the conference. This property does not affect meeting hosts or presenters.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Privileges, choose **All Attendees: Control console layout**. If this property is set to true, the option is set on by default.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To allow attendees to change the console appearance during conferences at site 1010506:

```
rtcctl> setProperty -siteId 1010506 -pname ConsoleAttendeeControlLayout -pvalue
true
```

ConsoleAttendeeUseAnnotationTool

Description: Allows or prevents attendees from using the Whiteboard tools. Hosts and presenters are not affected by this property.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Privileges, choose **All Attendees: Use annotation tools**. If this property is set to true, the option is checked on by default.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To allow attendees (only) to use the Whiteboard during conferences at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConsoleAttendeeUseAnnotationTool
-pvalue true
```

ConsoleAttendeeViewAttendeeList

Description: Allows or prevents attendees from viewing the list of other attendees. If this is false, the conference host and any conference presenter can still view the attendee list. You might want to set this to false for a site that conducts Web seminars, to prevent attendees from seeing who else is attending, but to allow hosts and presenters to do so.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web**

Conferencing Console Options under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Privileges, choose **All Attendees: View attendee list**. If this property is set to true, the option is set on by default.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent attendees (only) from seeing the list of attendees at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConsoleAttendeeViewAttendeeList -pvalue
false
```

ConsoleAttendeeViewStatusAlerts

Description: Allows or prevents attendees from viewing alert messages as attendees join or exit conferences. If true, the All Attendees: See alerts when attendees join option on any of the following pages is checked on by default.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Privileges, choose **All Attendees: See alerts when attendees join**. If this property is set to true, the option is set on by default.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent attendees (only) from seeing status alert messages in conferences at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConsoleAttendeeViewStatusAlerts -pvalue
false
```

EnableGuestForPresenterRole

Description: Allows or prevents whether a host can allow a **nonregistered user** who is viewing the host's desktop to become a "presenter" and interact with the desktop. If false, nonregistered users cannot be granted the right to present in a conference. This setting might be used when Web conferences are used for sales sessions, to prevent customers from interacting with host desktops.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent a host from allowing guests to present or interact with the desktop in conferences on site 123456, enter:

```
setProperty -siteId 123456 -pname EnableGuestForPresenterRole -pvalue false
```

> **Note:** Allowing a host to grant presenter privileges to a nonregistered user may be considered a security issue at your site.

ConsolePresenterSendPolls

Description: Allows an attendee who has been made a presenter to send polls.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Privileges, choose **Presenters: Send polls**. If this property is set to true, the option is checked on by default.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To allow attendees of conferences at site 1010506 who are presenters to send polls, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConsolePresenterSendPolls -pvalue true
```

ConsolePresenterSwitchModes

Description: Allows an attendee who has been made a presenter to change the conference sharing modes (for example, from Document Sharing to Whiteboard).

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Privileges, choose **Presenters: Switch modes**. If this property is set to true, the option is checked on by default.

Default Value: false

Valid Value: true, false

Scope: system, site

Example: To allow attendees of conferences at site 1010506 who are presenters to switch conference modes, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConsolePresenterSwitchModes -pvalue
true
```

ConsolePresenterUseAnnotationTool

Description: Allows attendees with shared control to use the whiteboard tools.

Administrators can also set this option for a site using the **Conference Properties** sub-tab under the **Sites** tab (see "Customizing Site Properties" on page 8-5 for details). Meeting hosts can also set this option for a future meeting using **Oracle Web Conferencing Console Options** under the **Schedule** tab, for the current meeting using **Preferences** from within the Web Conferencing console, or as the default for all their meetings using **Preferences** from the Web client pages. To set it, under Privileges,

choose **Presenters: Use annotation tools**. If this property is set to true, the option is checked on by default.

Default Value: false

Valid Value: true, false

Example: To allow attendees of conferences at site 1010506 who have been made presenters to use annotation tools, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConsolePresenterUseAnnotationTool
-pvalue true
```

EnableSharedControl

Description: Allows or prevents whether a host or any other presenter can share control of their desktop with any other attendee.

Default Value: true

Valid Value: true, false

Scope: system, site

Example: To prevent a host from sharing control with attendees in conferences at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname EnableSharedControl -pvalue false
```

Configuring Feedback Methods

You can gather feedback from your Oracle Real-Time Collaboration in two ways:

- You can request information from hosts and attendees after they participate in a Web conference.

- Users can send e-mailed comments about the Oracle Real-Time Collaboration using the **Contact Us** link at the top of Oracle Real-Time Collaboration Web Client pages.

The following sections describe how to set the properties to support these feedback methods.

Configuring Requests for Feedback After Conferences

As a meeting host exits a conference, a dialog requests the host to provide feedback about the conference. You can suppress this dialog or send hosts and users to your own custom Web page using the following properties. You can set the following properties either for your entire system, or for specific sites.

AttendeeExitUrl

Description: Lets you send meeting attendees to a particular Web page after each attendee exits a conference. Use this property if you want attendees to complete a survey or perform some other task on a Web site after a conference.

Default Value: none

Valid Value: Any valid URL

Scope: system, site

Example: To send conference attendees at your Sales site, ID 1234567, to your custom Web page, `http://mycompany.com/feedback_form.htm`, as they exit a conference, enter:

```
rtcctl> setProperty -siteID 1234567 -pname AttendeeExitUrl -pvalue
"http://mycompany.com/feedback_form.htm"
```

HostExitUrl

Description: Lets you send a meeting host to a particular Web page after the host exits a conference. Use this property if you want hosts to complete a survey or perform some other task on a Web site after a conference.

Default Value: none

Valid Value: Any valid URL

Scope: system, site

Example: To send all conference hosts to your custom Web page, `http://host_feedback_form/mycompany.com`, as they exit a conference, enter:

```
rtcctl> setProperty -system true -pname HostExitUrl -pvalue "http://host_feedback_
form/mycompany.com"
```

ShowFeedBack

Description: Displays or suppresses the default feedback form that appears as a host exits a conference. The form asks hosts to rate the conference, and to give any additional comments about the conference service. The data gathered from the feedback form is used in the Feedback report under the **Reports** tab.

Default Value: true

Valid Value: true or false

Scope: system, site

Example: To suppress the feedback form for Web conferences held on your Sales site, ID 1234567, enter:

```
rtcctl> setProperty -siteID 1234567 -pname ShowFeedBack -pvalue false
```

> **Note:** If you choose to suppress the default feedback form for your entire system, the Feedback report under the **Reports** tab will not contain any data.

Configuring Customer Feedback E-Mail Accounts

A **Contact Us** link appears at the top of every Oracle Real-Time Collaboration Web Client page. When users click the link, they can enter a message that is sent as e-mail to an administrative account you define.

AdminEmail

Description: Sets the e-mail account that receives e-mail whenever users click the **Contact Us** link from the Oracle Real-Time Collaboration Web Client pages.

Default Value: none

Valid Value: Any valid e-mail address.

Scope: system, instance

Example: To set jane.doc@mycompany.com to receive administrative e-mails, enter:

```
rtcctl> setProperty -system true -pname AdminEmail -pvalue jane.doe@mycompany.com
```

ContactFromEmail

Description: Sets the e-mail account that sends the e-mail when users click the **Contact Us** link at the top of the Oracle Real-Time Collaboration Web Client pages. Your administrator can then identify any e-mail coming in from Contact Us questions.

Default Value: none

Valid Value: Any valid e-mail address for your SMTP server.

Scope: system, instance

Example: To set the account rtc_comments@mycompany.com to send all "Contact us" e-mail, enter:

```
rtcctl> setProperty -system true -pname ContactFromEmail -pvalue rtc_
comments@mycompany.com
```

Configuring Voice Conversion Servers

The property described in this section lets you set the dial-in prefix for external calls made from the site where the Voice Conversion Server is deployed.

See "Setting Up Voice Conversion Servers for Oracle Real-Time Collaboration" on page 2-4 for details about Voice Conversion Server configuration.

VoiceDialInPrefix

Description: Sets the dial-in prefix for an instance of the Voice Conversion Server. This prefix would be added to all dial-in numbers received by the Voice Conversion Server before dialing out. Typically, corporations have a dial-in prefix (9, for example) for dialing numbers outside the company's internal phone network.

Default Value: none

Valid Value: Any valid dialing sequence. In most cases, it would be a number such as 9. A valid dialing sequence contains numbers 0 through 9 and any of the following characters: * # ,

Scope: instance

Example: To configure the dial-in prefix for a Voice Conversion Server instance to 9 enter:

```
rtcctl> setProperty -i instance-name -pname "VoiceDialinPrefix" -pvalue "9"
```

Configuring Reports

The properties described in this section let you control report defaults such as the default time periods that appear on Usage reports or the limits for some Quality of Service measurements. This section contains the following topics:

- Configuring Usage and Feedback Reports
- Configuring Quality of Service Measurements
- Configuring the Availability Report

Configuring Usage and Feedback Reports

The Usage reports under the **Reports** tab let you analyze statistics about the number of conferences, users, instant messages, streaming voice users, and so forth over a period of days, weeks, months, quarters, or years. The Feedback report under the **Reports** tab lets you review feedback comments and ratings from conference hosts. You can control the default number of units shown for any time period trended in these reports with the properties described in this section.

NumDayTrendPeriods

Description: Controls the default number of days trended in usage and feedback reports if an administrator chooses to display data by Day.

Default Value: 14

Valid Value: Any positive integer.

Scope: system, site

Example: To set the number of days trended to 7, enter:

```
rtcctl> setProperty -system true -pname NumDayTrendPeriods -pvalue 7
```

NumMonthTrendPeriods

Description: Controls the default number of months trended in usage and feedback reports if an administrator chooses to display data by Month.

Default Value: 12

Valid Value: Any positive integer.

Scope: system, site

Example: To set the number of months trended to 6, enter:

```
rtcctl> setProperty -system true -pname NumMonthTrendPeriods -pvalue 6
```

NumQuarterTrendPeriods

Description: Controls the default number of quarters trended in usage and feedback reports if an administrator chooses to display data by Quarter.

Default Value: 8

Valid Value: Any positive integer.

Scope: system, site

Example: To set the number of quarters trended to 4, enter:

```
rtcctl> setProperty -system true -pname NumQuarterTrendPeriods -pvalue 4
```

NumWeekTrendPeriods

Description: Controls the default number of weeks trended in usage and feedback reports if an administrator chooses to display data by Week.

Default Value: 26

Valid Value: Any positive integer.

Scope: system, site

Example: To set the number of weeks trended to 12, enter:

```
rtcctl> setProperty -system true -pname NumWeekTrendPeriods -pvalue 12
```

NumYearTrendPeriods

Description: Controls the default number of years trended in usage and feedback reports if an administrator chooses to display data by Year.

Default Value: 4

Valid Value: Any positive integer.

Scope: system, site

Example: To set the number of years trended to 3, enter:

```
rtcctl> setProperty -system true -pname NumYearTrendPeriods -pvalue 3
```

Configuring Quality of Service Measurements

The Quality of Service reports under the **Reports** tab let administrators evaluate the performance of the system as users connect to conferences, download clients, participate in voice connections, and so forth. You can use the following properties to set some of the measurements used by the reports to determine whether service is acceptable or unacceptable.

AcceptableJoinLatency

Description: Sets the measurement used to determine whether the time to join a conference is acceptable or unacceptable. The value in the report in seconds (s).

Default Value: 25 s

Valid Value: Any numeric value, followed by a space, then s (for seconds) or ms (for milliseconds). The entire value must be enclosed in quotation marks.

Scope: system

Example: To set the longest amount of time it can take to enter a conference on this system to be 15 seconds, so that any time after that is considered "unacceptable" in the Quality of Service report, enter:

```
rtcctl> setProperty -pname AcceptableJoinLatency -pvalue "15 s"
```

AcceptableNetworkLatency

Description: Sets the measurement used to determine whether the speed of the network connection is acceptable or unacceptable. The value can be set in seconds (s) or milliseconds (ms); it is displayed in the report in milliseconds (ms).

Default Value: 300 ms

Valid Value: Any numeric value, followed by a space, then s (for seconds) or ms (for milliseconds). The entire value must be enclosed in quotation marks.

Scope: system

Example: To set the longest acceptable network latency lag to 350 milliseconds, so that any time after that is considered "unacceptable" in the Quality of Service report, enter:

```
rtcctl> setProperty -pname AcceptableNetworkLatency -pvalue "350 ms"
```

Configuring the Availability Report

You may use third-party monitoring software to monitor the status and availability of Oracle Real-Time Collaboration services, using the test servlets or the `runTest` command to gather status information as described in "Oracle Real-Time Collaboration Monitoring Interfaces" on page 5-8. If your monitoring software

produces a report that you post on a web server, you can use the property described in this section to point to that report from the **Availability** sub-tab under **Reports**.

AvlURL

Description: The URL of a report page from your own third-party monitoring software, showing the availability of Oracle Real-Time Collaboration services.

Default Value: none

Valid Value: Any valid URL.

Scope: system

Example: If your third-party monitoring software produces a page showing Oracle Real-Time Collaboration service availability for your site 105204 at mycompany.com/avail_report.html, you would enter:

```
rtcctl> setProperty -siteId 105204 -pname AvlURL -pvalue
"http://mycompany.com/avail_report.html"
```

Controlling Archives

This section describes properties that let you save Oracle Messenger archives, publish Oracle Web Conferencing archives, and control whether conference attendees can play back or download conference recordings.

ConferenceRecordingDownloadEnabled

Description: Controls whether attendees and conference hosts can download the recording file for a conference. If false, meeting attendees, conference hosts, and other users who can view the conference archive cannot download any recordings from the **Archive** pages.

Default Value: true

Valid Value: true, false

Scope: site-user

Example: To prevent meeting attendees, conference hosts, and other users who can view conference archives from downloading recordings of conferences at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConferenceRecordingDownloadEnabled
-pvalue false
```

ConferenceRecordingPlaybackEnabled

Description: Controls whether attendees can play back the recording of a conference. If false, meeting attendees or other users who can view the conference record cannot play back any recordings from the **Archive** pages. Conference hosts can still play back the recording.

Default Value: true

Valid Value: true, false

Scope: site-user

Example: To prevent users from playing back recordings of conferences at site 1010506, enter:

```
rtcctl> setProperty -siteId 1010506 -pname ConferenceRecordingPlaybackEnabled
-pvalue false
```

> **Note:** If you set this property to true, you must bounce the Oracle Real-Time Collaboration servers to have the change take affect. See "Starting and Stopping Oracle Real-Time Collaboration Components" on page 2-9 for details on bouncing the servers.

IMArchiveEnabled

Description: Saves Oracle Messenger instant messages to the Oracle Real-Time Collaboration server, so that messages are available to users from the **Archives** tab. Messages are saved by contact name and date. Only the persons who participated in the message can view the archive for that message. Note that by default, archives are disabled (this property is set to false). If this property is set to false, **Message Archives** will not be displayed.

By default, message archiving is enabled in the Oracle Messenger client, and message archives are saved on the user's machine, not the server. Users can turn message archiving off by choosing **Options** from the **Tools** menu, then choosing **Instant Messages** and unchecking "Save messages."

See "Oracle Messenger Archives" on page 7-4 for more details about Oracle Messenger archives.

Default Value: false

Valid Value: true, false

Scope: system

Example: To save all instant messages on the server, so that messages can be viewed from the **Archives** tab on the Web client pages, enter:

```
rtcctl> setProperty -system true -pname IMArchiveEnabled -pvalue true
```

PublishOption

Description: Adds a publish option to the Exit Conference dialog, to let the host choose to publish this conference, including any conference recording. A **published conference** is available for conference attendees to view. See "Oracle Web Conferencing Archives" on page 7-1 for more details about Oracle Web Conferencing archives.

Default Value: ShowUnchecked

Valid Value: DontShow, ShowChecked, ShowUnchecked, ShowCheckedDisabled, ShowUncheckedDisabled

- DontShow: The publish option is not displayed.

- ShowChecked: The publish option is displayed, and is checked (selected). The user can change it if desired.

- ShowUnchecked: The publish option is displayed, and is unchecked (not selected). The user can change it if desired. This is the default.

- ShowCheckedDisabled: The publish option is displayed and is checked. The user cannot change it.

- ShowUncheckedDisabled: The publish option is displayed and is unchecked. The user cannot change it.

Scope: system, site

Example: To add a publish option to the Exit Conference dialog for any conference hosted on this site, enter:

```
rtcctl> setProperty -pname PublishOption -pvalue showchecked -siteID 0
```

Configuring System Logs

The Oracle Real-Time Collaboration system generates a number of logs you can use to analyze the performance of various processes, and to troubleshoot specific issues by component, process, and date of the incident. You can control how much detail is saved in the logs, when logs are "flushed" and rewritten, and the location of the generated log files using the following properties.

For information about viewing log files and the content of log files, see "Oracle Real-Time Collaboration System Logs" on page 6-6 and Appendix C, "Oracle Real-Time Collaboration Log Files".

LogFlushInterval

Description: Controls when logs are flushed–that is, when they are refreshed so new data is written. You enter a duration value and a text string identifying the type of duration unit.

Default Value: 10 sec

Valid Value: A combination of days, hours, minutes, seconds, and milliseconds. Valid abbreviations include "d", "hr", "min", "sec", "millis". You must leave a space between the numeric value and the duration abbreviation, so values must be enclosed in quotation marks.

Scope: component (default), system, instance

Example: To set the log flush interval to 1 second, enter:

```
rtcctl> setProperty -pname LogFlushInterval -pvalue "1 sec"
```

LogLevel

Description: Controls the amount of detail stored in the logs.

Default Value: CONFIG

Valid Value: NONE, SEVERE, WARNING, INFO, CONFIG, FINE, FINER, FINEST, ALL. Each setting includes the messages stored in the previous settings, beginning with SEVERE and moving down to FINEST.

- NONE: Logs are not collected.
- SEVERE: Only actions that resulted in severe error messages are stored.
- INFO: Actions that resulted in informational messages are also stored.
- WARNING: Actions that resulted in warning messages are also stored.
- CONFIG: Information about the runtime configuration of the system is also stored.
- FINE, FINER, FINEST: Each of these settings incrementally adds more detail about the actions and results of processes to the log files.
- ALL: Saves all messages in the log. This can be very verbose, so keep in mind your storage capacity on the system where you save log files if setting this option.

Scope: system, instance and component. The property can be set at a system scope, can be overridden for a specific instance and in turn can be overridden for a specific component in that instance.

Examples:

An administrator wants to set the systemwide log level to SEVERE. For a specific instance, the administrator wants the logs to be recorded at the WARNING level. For the Web Conferencing Servers in that instance, the administrator wants to record more detail at the FINE level.

- To set the systemwide log level to SEVERE, enter:

  ```
  rtcctl> setProperty -system true -pname LogLevel -pvalue SEVERE
  ```

- To set the instancewide log level for the current instance to WARNING, enter:

  ```
  rtcctl> setProperty -pname LogLevel -pvalue WARNING
  ```

- To set the log level for Web Conferencing Servers to FINE, enter:

  ```
  rtcctl> setProperty -ct confsvr -pname LogLevel -pvalue FINE
  ```

LogPath

Description: The log path relative to $IMT_HOME. The $IMT_HOME directory by default is $ORACLE_HOME/imeeting.

Default Value: logs (Because this is relative to $IMT_HOME, this value becomes $ORACLE_HOME/$IMT_HOME/logs)

Valid Value: any directory. The directory name must be specified using forward slashes (/), even on the Microsoft Windows platform.

Scope: component (default), system, instance

Example: To set the log path to $ORACLE_HOME/imeeting/rtclogfiles/, enter:

```
rtcctl> setProperty -system true -pname LogPath -pvalue "rtclogfiles"
```

UserLogLevel

Description: Sets the level of detail saved in logs from the OC4J_imeeting process (the Web client only). This can be helpful in debugging problems that individual users may be having in accessing or using the Web client pages.

Default Value: CONFIG

Valid Value: NONE, SEVERE, WARNING, INFO, CONFIG, FINE, FINER, FINEST, ALL. See the descriptions under "LogLevel". Each setting includes the messages stored in the previous settings, beginning with SEVERE and moving down to FINEST.

Scope: system, instance and component. The property can be set at a system scope, can be overridden for a specific instance and in turn can be overridden for a specific component in that instance.

Example: To set the log level of the Web client process (OC4J_imeeting) to FINE, enter:

```
rtcctl> setProperty -system true -pname UserLogLevel -pvalue FINE
```

Configuring Time Zones

Users can set their time zone by logging in to the Oracle Real-Time Collaboration Client and clicking **Preferences**. A list of available time zones appears.

After users have set their time zone, all date and time references in the Oracle Real-Time Collaboration Client and Web Conferencing or Oracle Messenger consoles are automatically converted to each user's time zone.

Example: User A sets his time zone to "(-05:00) US Eastern Time." He then schedules a conference for 30-Mar-2004 5:00 p.m. User B, whose time zone is set to "(-08:00) US Pacific Time," is invited to this conference. When User B sees the invitation in her Scheduled Conferences tab, it appears as 30-Mar-2004 2:00 p.m. The time has been converted to Pacific Time for User B.

See Appendix B for a complete list of supported time zones.

When a user registers with Oracle Real-Time Collaboration for the first time, the user's default time zone is set based on the system-level property DefaultTimeZoneName.

DefaultTimeZoneName

Description: Sets the default time zone for this Oracle Real-Time Collaboration system.

Default: UMT (Universal Mean Time)

Valid Value: Any zone listed in Appendix B.

Scope: system

Example: To set the system time zone to New York time, enter:

```
rtcctl> setProperty -system true -pname DefaultTimeZoneName -pvalue America/New_
York
```

Configuring LDAP Settings

Use the following properties to configure Oracle Internet Directory and LDAP settings.

OIDAuthAttribute

Description: Specifies a user attribute in the LDAP server.

Default Value: uid.

Valid Value: A user attribute in the LDAP server that is unique to that user.

Scope: system

Example: To set the user attribute to be mail, enter:

```
rtcctl> setProperty -system true -pname OIDAuthAttribute -pvalue mail
```

OIDAuthAttributeContainsDomain

Description: Specifies whether the OIDAuthAttribute property for all users already contains the IMDomainNames property value.

Default Value: false

Valid Value: true, false

Scope: system

Example: If the OIDAuthAttribute property is set to mail, and the IMDomainNames property specifies the domain mycompany.com, enter:

```
rtcctl> setProperty -system true -pname OIDAuthAttributeContainsDomain -pvalue
true
```

LdapHost

Description: The IP address or host name of the machine on which the LDAP server is running.

Default Value: determined during installation.

Valid Value: A valid IP address or host name.

Scope: system

Example: To set the host name to be mymachine.mycompany.com, enter:

```
rtcctl> setProperty -system true -pname LdapHost -pvalue mymachine.mycompany.com
```

LdapPort

Description: The port on which the LDAP server specified by the LdapHost property is listening for new connections. If the LdapSSLPortEnabled property is set to true, the connection is secure.

Default Value: 389

Valid Value: A valid port number.

Scope: system

Example: To set the LDAP port to be 3060, enter:

```
rtcctl> setProperty -system true -pname LdapPort -pvalue 3060
```

LdapUserName

Description: The name of the user who has read access to the LDAP server.

Default Value: empty string (anonymous user)

Valid Value: A valid user name.

Scope: system

Example: To set the LDAP username to be orcladmin, enter:

```
rtcctl> setProperty -system true -pname LdapUserName -pvalue cn=orcladmin
```

LdapPassword

Description: The password for the user name specified by the LdapUserName property.

Default Value: empty string (password for anonymous user)

Valid Value: A valid password.

Scope: system

Example: To set the LDAP password to be admin, enter:

```
rtcctl> setProperty -system true -pname LdapPassword -pvalue admin
```

LdapSSLPortEnabled

Description: Specifies whether the connection between Oracle Real-Time Collaboration and the LDAP server is secure.

Default Value: false

Valid Value: true, false

Scope: system

Example: To enable a secure connection between Oracle Real-Time Collaboration and the LDAP server, enter:

```
rtcctl> setProperty -system true -pname LdapSSLPortEnabled -pvalue true
```

Configuring Registration Notification Messages

Use the following properties to configure the e-mail messages that are sent to invite users to download Oracle Messenger.

MailReminderDelay

Description: Specifies the interval for reminder e-mail notification messages.

Default Value: 10 days

Valid Value: any positive number, in milliseconds

Scope: system

Example: To set the interval between reminder e-mail notification messages to be 5 days, enter:

```
rtcctl> setProperty -system true -pname MailReminderDelay -pvalue 432000000
```

MaxNoOfEmailNotification

Description: Specifies the maximum number of e-mail notification messages that are sent to a user.

Default Value: 10

Valid Value: any positive number

Scope: system

Example: To set the maximum number of e-mail notification messages to 3, enter:

```
rtcctl> setProperty -system true -pname MaxNoOfEmailNotification -pvalue 3
```

MailRetryCount

Description: Specifies the maximum number of times to retry sending an e-mail notification message if the first attempt fails.

Default Value: 2

Valid Value: any positive number

Scope: system

Example: To set the maximum number of retries to 1, enter:

```
rtcctl> setProperty -system true -pname MailRetryCount -pvalue 1
```

4

rtcctl Command-Line Utility for Oracle Real-Time Collaboration

The rtcctl utility provides a command-line interface for administering and configuring the Oracle Real-Time Collaboration system. The utility supports a variety of commands to let you start and stop Oracle Real-Time Collaboration processes, view their current state, and configure your Oracle Real-Time Collaboration system. This chapter contains the following sections:

- Running rtcctl
- Setting System, Instance, Component, and Site Values
- List of rtcctl Commands
- Starting and Stopping an Instance
- Listing System Information
- Setting and Displaying Properties
- Setting User Roles
- Setting Conference Dial-In Information
- Managing Groups for Group Presence
- Testing and Monitoring the System
- Getting Help and Quitting rtcctl

Running rtcctl

The rtcctl utility is available on all platforms under the $ORACLE_HOME/imeeting/bin directory. There are two ways to run rtcctl commands interactively.

- Enter the entire `rtcctl` command at the command line. This executes one command at a time. For example:

  ```
  > $ORACLE_HOME/imeeting/bin/rtcctl setProperty -system true -pname
  StartupMeetingMode -pvalue DesktopSharing
  ```

> **Caution:** You can use rtcctl to set sensitive data, such as passwords used to support SSL security. Values of arguments to rtcctl are available to operating system commands such as `ps`. Therefore, Oracle strongly recommends that you do not enter rtcctl commands with sensitive values using command-line mode.
>
> See "Keeping rtcctl Command Arguments Secure" on page 4-3 for details about how to enter rtcctl commands securely.

- Enter `rtcctl` without any options. This opens the utility in rtcctl shell mode. See "Using rtcctl in Shell Mode" for details.

You can also create standard UNIX or Linux shell scripts to run rtcctl commands, as described in "rtcctl Scripts".

The following sections describe how to use rtcctl in interactive mode, and how to run rtcctl scripts.

Using rtcctl in Shell Mode

To start rtcctl in its shell mode, enter `rtcctl` in an operating system shell or command window, without any options:

```
$ORACLE_HOME/imeeting/bin> rtcctl
rtcctl>
```

You can then enter as many rtcctl commands as you want:

```
rtcctl> setProperty -siteId 1024536 -pname SmtpHost -pvalue www.mycompany.com
rtcctl> setProperty -siteId 1024536 -pname SmtpPort -pvalue 25
rtcctl>
```

> **Caution:** You can use rtcctl to set sensitive data. All entries made in shell mode are stored in the Oracle Real-Time Collaboration log files. See "Keeping rtcctl Command Arguments Secure" on page 4-3 for details about how to enter rtcctl commands securely.

To display a list of supported commands, enter `help`:

```
rtcctl> help
```

To get specific instructions for a particular command, enter the command followed by the `-help` option:

```
rtcctl> getState -help
```

Stop command-line mode by entering `exit`:

```
rtcctl> exit
```

rtcctl Scripts

You can write simple scripts for the rtcctl utility, consisting of rtcctl commands and optional comments. Run the scripts using standard input redirection as in the following example.

```
$ORACLE_HOME/imeeting/bin> rtcctl < myscripts/sample
```

Your scripts can contain any supported rtcctl commands, comment lines (any line that begins with the hash symbol (#)), and the special echo [on/off] command for echoing commands executed by scripts.

Keeping rtcctl Command Arguments Secure

When you use rtcctl in command-line mode, operating system command shell functions such as ps can identify the values of arguments passed. If you pass a secure value in one of these commands (for example, an obfuscated wallet password) the security of that value is compromised. Oracle strongly recommends that you do not enter rtcctl commands with sensitive values using command-line mode.

In addition, when using either command-line mode or rtcctl shell mode, all data passed is stored in log files in the $ORACLE_HOME/imeeting/logs/rtcctl directory. This means the values to sensitive arguments could be found in the logs as well.

Therefore, to ensure that a series of commands are entered securely, so that no one can determine what values were entered for these commands, Oracle recommends that you use rtcctl in shell mode, and use the no-command-logging option, as follows:

```
rtcctl> set no-command-logging=true
rtcctl> setProperty -pname WalletPassword -pvalue string
rtcctl> set no-command-logging=false
```

This example prevents any applications from gaining access to the obfuscated string entered as an argument while setting the WalletPassword property.

Setting System, Instance, Component, and Site Values

As discussed in Chapter 3, you can use rtcctl to configure an entire system or particular instances or components. Table 4–1 shows the possible values for any of the scope-related options for all rtcctl commands; you may use these values with any command that includes one of these options.

Table 4–1   Valid Values for System, Site, Instance, or Component Options

rtcctl Option	Scope it Affects	Valid Values
-system	Entire system	true/false
-i	An instance	The full instance name: *instance_name*.computername.domainname, where *instance_name* is a name you assign as you install the instance.
		Use rtcctl listInstances to display the IDs for all instances for this system, or click the **System** tab in the Web Client pages to display all instances.
		Example: myinst.computer.mycompany.com
-cid	A single component, by its ID	A number assigned by the Oracle Real-Time Collaboration system to this component when you install it.
		Use rtcctl listComponents to display the IDs for all components in the current instance, or click the **System** tab in the Web Client pages to display all components and their IDs for your system.

Table 4–1 (Cont.) Valid Values for System, Site, Instance, or Component Options

rtcctl Option	Scope it Affects	Valid Values
-cname	Any component of a specific name	Any of the following names: `oc4j_imeeting`: Oracle Real-Time Collaboration Application for J2EE `rtc-confsvr`: Web Conferencing Server `rtc-connmgr`: Client Connection Manager `rtc-docconv`: Document Conversion Server `rtc-imrtr`: Oracle Presence Server `rtc-mx`: Multiplexer `rtcpm`: Process Manager `rtc-rdtr`: Redirector `rtc-voiceconv`: Voice Conversion Server `rtc-voiceproxy`: Voice Proxy Server
-ct	Any component of a specific type	Any of the following types: `confsvr`: Web Conferencing Server `connmgr`: Client Connection Manager `docconv`: Document Conversion Server `imrtr`: Oracle Presence Server `mx`: Multiplexer `oc4j`: Oracle Real-Time Collaboration Application for J2EE `rdtr`: Redirector `rtcpm`: Process Manager `voiceconv`: Voice Conversion Server `voiceproxy`: Voice Proxy Server
-siteID	A single site, by its ID	A number assigned by the Oracle Real-Time Collaboration system to this site when you create it. Click the **Sites** tab in the Web Client pages to display all sites and their IDs for your system.
-force	This system, site, instance, or component, and any sites, instances, or components that inherit its properties	true or false

Forcing Property Inheritance

By default, a property set on a system is automatically inherited by the site. If the administrator sets a different value for that property for the site, the new site value takes precedence over the system value.

However, administrators can require that a property be inherited by using the -force option. The -force option causes the property to be inherited by all sites, instances, or components that inherit the property from its parent.

For example, assume an administrator disables chatting within a Web conference for the entire Oracle Real-Time Collaboration system, by entering:

```
rtcctl> setProperty -pname ChatEnabled -pvalue false -system true
```

Any site created on this system will inherit this setting. If the administrator later decides that site 435987 should allow chat, the administrator can enter:

```
rtcctl> setProperty -pname ChatEnabled -pvalue true -siteId 435987
```

Conferences held at that site would display the Chat interface; any other conference would not.

However, suppose that the administrator decides that no user should ever be allowed to use the chat option in a Web conference held on this system, or on any site created on it. The administrator can enter:

```
rtcctl> setProperty -pname ChatEnabled -pvalue false -system true -force true
```

Now even if a site administrator uses the **Application Properties** tab on the **Sites** page for that site to enable chat in conferences, it would not have any effect. The chat option would still not be available in conferences, because the setting for the system has been forced on all sites, instances, and components.

List of rtcctl Commands

Table 4–2 provides a brief summary of all rtcctl commands.

Table 4–2   rtcctl Commands

Command	Use to
addGroup	Create a group for group presence services
addGroupMember	Add a user to a group created for group presence
addSysDialin	Add a dial-in number for voice conferencing
deleteGroup	Delete a group for group presence services
deleteGroupMember	Delete a user from a group created for group presence.
deleteSysDialin	Delete a voice conferencing dial-in number
describeProperties	Displays the definition of any property, including default value and scope.
exit or quit	Exit rtcctl command-line mode
getMonitorStats	Get monitoring statistics
getGroups	List all groups created for group presence services
getGroupMembers	List all members of a group created for group presence services
getMonitorStats	Display monitoring statistics for a system, instance, or component
getPids	Get identifiers for current Web Conferencing processes
getProperties	Get the current value of properties at a specified scope
getProperty	Get the current value of any property
getState	Determine the current status of Web Conferencing components
getSysDialins	Display all dial-in numbers currently set
help	Display a list of available commands
listComponents	Display current properties for Web Conferencing components
listInstances	Display current properties for Web Conferencing instances
modifyRole	Set or change roles for any Web Conferencing user

Table 4–2   (Cont.) rtcctl Commands

Command	Use to
runTests	Run status tests on the Web Conferencing system
setProperty	Set properties to configure the Web Conferencing system
start	Start a Web Conferencing instance
stop	Stop a Web Conferencing instance
versions	List version information for an instance or component

The following sections discuss the rtcctl commands, grouped by usage.

Starting and Stopping an Instance

You use the `start` and `stop` commands to start and stop any instance or component processes.

Note: Although the `start` and `stop` commands let you start and stop individual components for administrative purposes, Oracle recommends that you start or stop only a complete instance whenever possible.

---

start

Starts the current instance, or individual components in the current instance. See Table 4–1 for the valid values for instance and component options.

```
start
```
Starts the RTC Process Manager and all the components in the current instance. This is the recommended way to start an instance, because it handles all startup dependencies.

```
start -i instance-name
```
Start all components in a specific instance.

```
start -cid component-ID
```
Start the component with the given ID.

```
start -cname component-name
```
Start the component with the given name.

```
start -ct component-type
```
Start the component with the given type.

Note: The `start` command, without any other options, starts the Process Manager along with the other components. The Process Manager must be running in order to use the `start` command with any other options to start individual processes. See Chapter 5 for more information about the Process Manager.

Example 1: Starting a Component with a Specific ID

To start a component with ID 10001 in the current instance, enter:

```
rtcctl> start -cid 10001
```

> **Note:** The component with the ID you enter must have previously been running on the instance where you enter the command.

Example 2: Starting a Component with a Specific Name

To start a component named rtc-confsvr (the Oracle Web Conferencing Server) in the current instance, enter:

```
rtcctl> start -cname rtc-confsvr
```

> **Note:** The component with the name you enter must have previously been running on the instance where you enter the command.

stop

Stops the current instance, or individual components in the current instance. See Table 4–1 for the valid values for instance and component options.

```
stop
```
Stop all the components in the current instance. This is the recommended way to stop an instance, because it stops all components in the instance in appropriate order.

```
stop -i instance-name
```
Stop all components in a specific instance.

```
stop -cid component-ID
```
Stop the component with the given ID.

```
stop -cname component-name
```
Stop the component with the given name.

```
stop -ct component-type
```
Stop the component with the given type.

Example 1: Stopping a Component with a Specific ID

To stop a component with ID 10001, enter:

```
rtcctl> stop -cid 10001
```

> **Note:** The component with the ID you enter must be running on the instance where you enter the command.

Example 2: Stopping a Component with a Specific Name

To stop any component named rtc-confsvr, enter:

```
rtcctl> stop -cname rtc-confsvr
```

> **Note:** The component with the name you enter must be running on the instance where you enter the command.

Listing System Information

Three informational commands, listInstances, listComponents, and versions, let you display details about parts of your system.

listInstances

Lists all the instances in the Oracle Real-Time Collaboration system.

```
rtcctl> listInstances
INSTANCE NAME                  HOST NAME                IMT HOME
instance1.mycompany.com        host1.mycompany.com       C:/core/rtc
instance2.mycompany.com        host2.mycompany.com       /u02/90200b/rtc
```

listComponents

Lists the components in any Oracle Real-Time Collaboration instance. See Table 4–1 for the valid values for component and instance options.

```
listComponents
```
List information about all components on the current instance.

```
listComponents -i instance-name
```
List all the components for a particular instance.

```
listComponents -cid component_ID
```
List the component with the given ID.

```
listComponents -cname component-name [-i instance-name]
```
List the component with the given name. If -i is used, the component with the given name in the given instance is listed.

```
listComponents -ct component-type [-i instance-name]
```
List the component with the given type. If -i is used, the component with the given type in the given instance is listed.

Example 1: Listing Components in the Current Instance

To list the components in the current instance, enter:

```
rtcctl> listComponents
ID      NAME          TYPE       DESCRIPTION           NUM_PROCS
10007   rtc-connmgr   connmgr    IM Connection Manager  2
10000   rtc-confsvr   confsvr    Web Conferencing Server 4
10006   rtc-imrtr     imrtr      IM Router              1
10008   rtc-voiceproxy voiceproxy Voice Proxy Server    1
10004   rtcpm         rtcpm      RTC Process Monitor    1
10001   OC4J_imeeting oc4j       OC4J                   1
10003   rtc-rdtr      rdtr       Redirector             1
10002   rtc-mx        mx         Multiplexer            1
10005   rtcctl        rtcctl     RTC Command-Line Control 1
```

Example 2: Listing Components for a Specific Instance

To list the components in a different instance (instance1.company.com), enter:

```
rtcctl> listComponents -i instance1.company.com
ID      NAME          TYPE       DESCRIPTION           NUM_PROCS
10003   rtc-voiceconv  voiceconv  Voice Conversion Server   1
10004   rtc-docconv    docconv    Document Conversion Server 1
```

Example 3: Listing Components with a Specific ID

To list the component with the ID 10001, enter:

```
rtcctl> listComponents -cid 10001
ID      NAME          TYPE       DESCRIPTION           NUM_PROCS
10001   OC4J_imeeting  oc4j       OC4J                      1
```

Example 4: Listing Components with a Specific Type

To list the components in the current instance with the type confsvr, enter:

```
rtcctl> listComponents -ct confsvr
ID      NAME            TYPE        DESCRIPTION              NUM_PROCS
10000   rtc-confsvr     confsvr     Web Conferencing Server  4
```

versions

Lists the software versions for an instance or components. See Table 4–1 for the valid values for instance and component options.

```
versions [-i instance-name]
```
List versions for all components in the current instance or a specified instance.

```
versions -cid component-ID
```
List the version for a specific component, by its ID.

```
versions -cname component-name [-i instance-name]
```
List the versions for all components with a specific name, and optionally for a specific instance.

```
versions -ct component-type [-i instance-name]
```
List the versions for all components with a specific type, and optionally for a specific instance.

Example 1: List Versions for the Current Instance

To list the software versions running on all components in the current instance, enter:

```
rtcctl> versions
ID      NAME            TYPE        VERSION
10000   rtc-confsvr     confsvr     10.1.2.0.0 3.0.3.0.0_050614.1514
10004   rtcpm           rtcpm       10.1.2.0.0 3.0.3.0.0_050614.1514
10001   OC4J_imeeting   oc4j        10.1.2.0.0 3.0.3.0.0_050614.1514
...
```

Example 2: List Versions for a Component on a Specific Instance

To list the software version of the Document Conversion Server on myinstance.mycompany.com, enter:

```
rtcctl> versions -ct docconv -i myinstance.mycompany.com
ID       NAME           TYPE        VERSION
10010    rtc-docconv    docconv     10.1.2.0.0 3.0.3.0.0_050614.1514
```

Setting and Displaying Properties

You configure the Oracle Real-Time Collaboration system by setting properties. The setProperty, getProperty, getProperties, and describeProperties commands let you set and display property details.

See Chapter 3 for information about the properties you can set. That chapter also provides specific syntax for each property.

setProperty

Sets a property to configure a Oracle Real-Time Collaboration system, instance, component, or site. See Table 4–1 for the valid values for system, instance, component, and site options.

```
rtcctl> setProperty -pname property-name -pvalue property-name
```

Set the value for a property at instance level.

```
rtcctl> setProperty -cid component-id -pname prop_name -pvalue prop_value
```
Set the value of a property for the component with the given ID.

```
rtcctl> setProperty -cname component_name [-i instance_name] -pname prop_name
-pvalue prop_value
```
Set the value of a property for the component with the given name in the current instance. If -i is used, it sets the property for the component of the given name in the given instance.

```
rtcctl> setProperty -ct component-type [-i instance-name] -pname prop_name -pvalue
prop_value
```
Set the value of a property for the component with the given type in the current instance. If -i is used, it sets the property for the component with the given type in the given instance.

```
rtcctl> setProperty -siteId site-id -userName first.last@domain.com -pname
property_name -pvalue property_value
```
Set the value for a property at a site and user level.

```
rtcctl> setProperty -system true -pname property_name -pvalue property_value
```
Set the value for a property at the system level.

```
rtcctl> setProperty -siteId site-id -pname property_name -pvalue property_value
```
Set the value for a property on a particular site.

```
rtcctl> setProperty -pname property_name -pvalue "[\"value1\", \"value2\"]"
```
Set the value for a property that allows multiple values. Multiple values are entered as an array. Each value is surrounded by quotation marks preceded by backslashes, the array is enclosed in brackets, and the entire property value is enclosed in quotation marks.

```
rtcctl> setProperty -pname property-name -pvaluenull true|false
```
Sets the value of a property to null if -pvaluenull is true. Use this to unset a property so that it has a null value. Some properties interpret null in a special manner. For example, the GlobalWebhost property, once configured, cannot be unset unless set to a value of "null." By default, the value for -pvaluenull is false, in which case a -pvalue is required.

> **Note:** If you want to set a property value to null, you *must* use the -pvaluenull option. Using the -pvalue option to set a value to null (-pvalue "null") will set the property to the string "null" rather than to a null value.

```
rtcctl> setProperty -force true -system true -pname property-name -pvalue value
```
Forces a property be set to true on all instances in this system. An administrator can use the -force option in any rtcctl command, to force all inherited properties to adhere to a particular property setting. This prevents users from overriding the settings using Preference, or site administrators from overriding properties for a particular site. The -force option is a simple Boolean option that is either true or false. It can be set for any property.

Administrators should consider using the option for any property values they want to strictly control.

> **Note:** In the examples that follow, the -pvalue option is generally shown without using quotation marks around the value given. Quotation marks are only required for a value if it contains a space. In Chapter 3, any properties that require quotation marks around the value are noted as such.

Example 1: Setting a Property for an Instance

To set the ApacheWebHost property for the current instance to imeeting4.company.com, enter:

```
rtcctl> setProperty -pname ApacheWebHost -pvalue imeeting4.company.com
```

Example 2: Setting a Property for a System

To set the systemwide log-level to SEVERE, enter:

```
rtcctl> setProperty -system true -pname LogLevel -pvalue SEVERE
```

See Chapter 3 for examples of how to set each Oracle Real-Time Collaboration property.

getProperty

Gets a property at a specified scope: system, instance (default), component, and site. See Table 4–1 for the valid values for system, instance, component, and site options.

```
rtcctl> getProperty -pname property_name
```
Get the value for the property for this instance.

```
rtcctl> getProperty -pname property_name -verbose true
```
Get the value for the property for this instance, along with additional information such as actual and effective values.

```
rtcctl> getProperty -cid component-id  -pname property_name
```
Get the value of the property for the component with the given ID.

```
rtcctl> getProperty -cname component-name [-i instance-name] -pname  property_name
```
Get the value of the property for the component of the given name in the current instance. If −i is used, it gets the property for the component of the given name in the given instance.

```
rtcctl> getProperty -ct component-type [-i instance-name] -pname property_name
```
Get the value of the property for the component with the given type in the current instance. If −i is used, it gets the property for the component with the given type in the given instance.

```
rtcctl> getProperty -system true -pname property_name
```
Get the value for the property at the system level.

```
rtcctl> getProperty -siteId site-id -pname property_name
```
Get the value for all the properties at the site level for the specified site.

```
rtcctl> getProperty -pname property_name -actualvalue true -system true|-siteid
site-id|-cid component-id|-i instance-name|-username first.lastname@domain.com
```
Get the **actual value** for the property at the specified scope. See "Determining a Property Value at a Specific Scope" for details.

> **Note:** You can also view the value of properties set for a system, site, or instance using the Status report under the **System** tab. To do so, click **System**, make sure that **Show Properties** is checked on, then click **Expand All** to see all property settings.

Determining a Property Value at a Specific Scope

As described in "Multiple-Scope Properties" on page 3-2, properties can be inherited from one level of the Oracle Real-Time Collaboration system to another. For example, a site can inherit properties from its parent system.

When you use the `getProperty` command to display a property value, it shows the **effective value** for that property, which is the value of the property used at runtime by the system. That value is based on the values set for the property with `setProperty`, any settings made by users using **Preferences** or the **Schedule** options for a conference, and the property inheritance rules.

When you set a property with `setProperty`, you are setting its **actual value**, which is stored for a property at whatever scope you used to set the property. For example, if the ChatEnabled property is set for a site, the property's actual value is the value that was set for the site scope. The actual value is not valid at the system level, because the property was not set on the system.

Therefore, if you want to view the value of a property that you set at a site scope, you must include the `-actualvalue true` and `-siteId` *siteID_value* options with the `getProperty` command.

Because an administrator can set a property for a specific user, as described for setProperty on page 4-9, and because many properties can also be set by users or site administrators using various options in the Oracle Real-Time Collaboration Web Client or the Oracle Web Conferencing console (see Table 3–3 on page 3-6), you may need to get the property value for the site and a specific user. For example, ChatEnabled can be set by a user in **Preferences**, so to display the value of ChatEnabled you may need to include the -username option as well as the -siteId option, as follows:

```
rtcctl> getProperty -pname ChatEnabled -actualvalue true -siteId 123456 -username
jane.doe@mycompany.com
```

The possible scope levels at which a property's actual value may be set are shown in Table 4–3.

Table 4–3   Scope Levels for Actual Values of Properties

Scope Set At	Arguments to Specify Scope Level
system	`-actualvalue true -system true`
site	`-actualvalue true -siteId` *site_number*
site and users	`-actualvalue true -siteId` *site_number* `-userName` *user.name@domain.com*
instance	`-actualvalue true -i` *instance_name*
component	`-actualvalue true -cid` *component_ID*

Example 1: Getting a Property for the Current Instance

To get the ApacheWebHost property for the current instance, enter:

```
rtcctl> getProperty -pname ApacheWebHost
The effective value for instance myinstance.system1.mycompany.com of the property
```

```
"ApacheWebHost" is "rtcserver1.mycompany.com"
```

Example 2: Getting a Property for the System

To display whether the system has SSL security enabled, enter:

```
rtcctl> getProperty -system true -pname RTCSSLSupportEnabled
The effective value at system scope of the property "RTCSSLSupportEnabled" is
"true"
```

Example 3: Getting an Actual Property Value for a Site

To view the value of a property that you set for a site, enter:

```
rtcctl> getProperty -siteId 1010506 -pname AdminEmail
The actual value at site scope of the property "AdminEmail" is "site_
manager@mycompany.com"
```

For a list of all possible properties, see Chapter 3.

getProperties

Displays an alphabetized list of all properties at the specified scope and higher. You can display properties for the system and for an instance, component, or site. See Table 4–1 for the valid values for system, instance, component, and site options.

```
rtcctl> getProperties
```
Display the values for the properties for this instance and for the system.

```
rtcctl> getProperties -ct component-type [-i  instance-name]
```
Display the value of all the properties for the component with the given type in the current instance. If −i is used, it gets the property for the component with the given type in the given instance. It will return properties for the component, instance, and system.

```
rtcctl> getProperties -system true
```
Display only system properties.

```
rtcctl> getProperties -siteId site-id
```
Display the value for all the properties for the specified site and the system.

```
rtcctl> getProperties -actualvalue true -system true|-siteid site-id|-cid
component-id|-i instance-name|-username first.lastname@domain.com
```
Displays the values for properties used by a system, instance, site, or component at runtime. This is the **actual value** of the properties. See "Determining a Property Value at a Specific Scope" on page 4-12, for more details about **effective value** and **actual value**.

```
rtcctl> getProperties -maxlevel category
```
Displays properties filtered by the category *category*, where *category* can have the following value:

- general: This is the default.

- advanced: displays advanced properties.

- internal: displays internal properties.

- all: displays all properties.

> **Note:** You can also view the value of properties set for a system, site, or instance using the Status report under the **System** tab. To do so, click **System**, make sure that **Show Properties** is checked on, then click **Expand All** to see all property settings.

Example 1: Displaying the Properties for the System Only

To display only system-level properties, enter:

```
rtcctl> getProperties -system true -maxlevel all
AcceptableJoinLatency="25 s"
AcceptableNetworkLatency="300 ms"
AllSitesID="100"
ApplicationContainerName="RTC"
...
```

> **Note:** The command displays all properties set for your system, including those set by default or through the Oracle Real-Time Collaboration Web Client. The properties you might normally set using setProperty to configure your system are discussed in Chapter 3.

Example 2: Displaying the Properties for a Component by Type

To display the properties of all Web Conferencing server (confsvr) components on this instance, as well as instance and system properties, enter:

```
rtcctl> getProperties -ct confsvr
AcceptableJoinLatency="25 s"
AcceptableNetworkLatency="300 ms"
AdditionalLocationsServed="(null)"
AdminEmail="john.smith@mycompany.com"
AllSitesID="100"
ApacheProtocolSecure="false"
ApacheTunnelHost="(null)"
ApacheTunnelPort="443"
ApacheWebHost="computer.mycompany.com"
ApacheWebPort="80"
ApacheWebSecurePort="4443"
...
```

Example 3: Displaying the Actual Values of Properties for a Site

To display the value of properties used at runtime by a specific site, enter:

```
rtcctl> getProperties -siteId 1010506 -actualvalue true
ChatEnabled="false"
PublicChat="true"
WelcomeHeaderText="Training Conference Site for Big Company, Inc."
```

describeProperties

Displays the definition for the specified property, including the default value and the scope.

```
rtcctl> describeProperties -pname property_name
```

Displays the definition for the specified property. Even if you don't know the exact property name, you can enter the first letter or the first part of the property name to display a list of all matching properties.

Example 1: Displaying the Definition of a Specific Property

To display the definition of the RememberPasswordEnabled property, enter:

```
rtcctl> describeProperties -pname RememberPasswordEnabled
Property name: RememberPasswordEnabled
Data Type: Boolean
Default Value: true
Applicable Scope Type(s): system
Level: Advanced
```

Example 2: Displaying the Definitions for All Properties That Begin With a Specific Letter or Phrase

To display the definitions of all properties that begin with the letter R, enter:

```
rtcctl> describeProperties -pname R
```

To display the definitions of all properties that begin with "Enable", enter:

```
rtcctl> describeProperties -pname Enable
```

Setting User Roles

As described in "Oracle Real-Time Collaboration User Management and User Roles" on page 1-7, the Oracle Real-Time Collaboration system uses the Oracle Internet Directory store to identify users. A business administrator can use the modifyRole command to assign **roles** to these users to allow them access to various features of the system.

modifyRole

Sets a user's role, to control what features of the Oracle Real-Time Collaboration system the user may access. By default, you set the user's role for an entire system, as follows:

```
rtcctl> modifyRole -username username -rolename rolename
```

Assigns a role to a named user. The user's name is that shown in the Oracle Internet Directory, such as john.smith. The role can be any of the following:

- **enduser:** Can use any of the standard Oracle Real-Time Collaboration features, such as scheduling a conference, uploading materials, and viewing conference and instant messaging archives.

- **businessmonitor:** Can use standard Oracle Real-Time Collaboration features, and can also view the **Monitor** and **Reports** tabs to monitor current conferences and see reports regarding conference and messaging history, component usage, system problems, security information, and user feedback about conferences.

- **businessadmin:** Can use any of the previously listed features, and can also view the **Site** and **System** tabs to create and manage Oracle Real-Time Collaboration sites and view statistics about all instances and components of the system.

> **Note:** Only a user with the businessadmin role can set other users' roles. As discussed in "Oracle Real-Time Collaboration User Management and User Roles" on page 1-7, you must set at least one businessadmin user for an Oracle Real-Time Collaboration installation.

You can also assign a role to a user of a particular site. When the user logs in to the site, he will be able to interact with the site at whatever level role you have assigned him. Include the site ID as follows:

```
modifyRole -siteId siteID -username username -rolename rolename
```

Example 1: Setting a Business Administrator Role

To set jane.roe to be a business administrator, enter:

```
rtcctl> modifyRole -username jane.roe -rolename businessadmin
```

Example 2: Setting a Business Monitor for a Site

To set sam.smith to be a business monitor for site 123456, enter:

```
rtcctl> modifyRole -siteId 123456 -username sam.smith -rolename businessmonitor
```

Determining a User's Role

To determine the role that was assigned to a user using the `modifyRole` command, you can use the `getProperty` command as follows:

```
rtcctl> getProperty -pname SiteRoleId -userid userid|-username username -siteId
site-id
```

The value returned is either 2 (enduser role), 4 (businessadmin role), or 6 (businessmonitor role).

Setting Conference Dial-In Information

If you use streaming voice conferences, the `addSysDialin`, `deleteSysDialin`, and `getSysDialins` commands let you manage the dial-in numbers for any of your phone conference vendors. See Chapter 3 for more details and examples of how you might set dial-in information.

addSysDialin

Sets a named dial-in with a preprogrammed phone number that users can choose when scheduling a conference. You can enter a complete number with conference ID and password for a recurring phone conference, or enter a template number with text indicating where users need to substitute their own information. When users select this dial-in, they can edit the number in the text field.

```
rtcctl> addSysDialin -name dialin-name -sequence dialin-sequence [-default true]
```

Adds a dial-in with a specified name and number (sequence). If `-default` is set to true, this dial-in is the default for all users of the Oracle Real-Time Collaboration system.

> **Note:** The Voice Conversion Server handles the actual dialing of
> the number. If your company has a prefix that must be entered to
> get an outside line, you set that prefix using the VoiceDialInPrefix
> property. Do *not* enter the prefix in the dial-in. See "Setting Up Voice
> Conversion Servers for Oracle Real-Time Collaboration" on
> page 2-4 for more details.

Example 1: Setting a Default Dial-in for a System

To set a dial-in named Standard Conference that can be used by all users as a default,
enter:

```
rtcctl> addSysDialin -name "Standard Conference" -sequence "18005551234,,<Conf
ID>#<Passcode>#,,,,,,,,,,#" -default true
New system dialin created with id = 21994
```

The Oracle Real-Time Collaboration system automatically assigns an ID number to the
dial-in.

In the previous example, users must remove the angle brackets and the text inside it to
type in their conference ID and passcode for a specific conference. The commas (,)
cause dialing to pause for 1 second. The hash (#) symbol is included because it is
required by this vendor for users to complete entering an ID or password. If your
phone conference system includes additional messages to which the user must
respond by pressing #, you can include commas to pause during the message and a #
for the response.

Example 2: Setting a Dial-in for a Recurring Conference

To set a dial-in for a recurring conference at 1-800-555-1234 with ID 80904 and
passcode 56221, enter:

```
addSysDialin -name "Sales Force Mtg" -sequence
"18005551234,,80904#56221#,,,,,,,,,,#"
```

getSysDialins

Displays the currently set dial-ins.

```
rtcctl> getSysDialins
ID     NAME                 SEQUENCE
21994  Standard Conference  18005551234,,<Conf ID>#<Passcode>#,,,,,,,,,,#
21998  Sales Force Mtg      18005551234,,80904#56221#,,,,,,,,,,#
```

deleteSysDialin

Deletes an existing dial-in number. You can delete the dial-in by entering either its
name or its ID. For example, to delete a conference named Standard Conference, enter:

```
rtcctl> deleteSysDialin -name "Standard Conference"
Standard Conference has been deleted
```

To delete a conference with the ID 21994, enter:

```
rtcctl> deleteSysDialin -id 21994
Dialin with id 21994 has been deleted
```

Managing Groups for Group Presence

Oracle Real-Time Collaboration Integration Services include **group presence services** that let you create applications to support live, online chat with identified persons, for example support or sales personnel. These persons are part of a special group that the group presence service contacts with a **queued chat**. Any member of the group can respond to the queued chat, and can also see the other chats that are currently occurring with other users. There are two types of groups that can be created: answer groups, and broadcast groups. The following sections describe the basic steps to create these groups.

See the *Oracle Real-Time Collaboration Application Developer's Guide* for more details about the available group presence services.

Creating and Using an Answer Group

The following example outlines a typical scenario for setting up and using group presence to support live help for a support team at Big Company. In this example, the company's domain name is big_company.com, and the name of the group created by administrators is "support."

1. An administrator uses `rtcctl addGroup` to create a group called "support."

2. An application engineer creates an application that uses Oracle Real-Time Collaboration integration services to post a message to the support group chat queue whenever a customer clicks a **Get Help** button on a web page.

   The integrated services called by the application will post messages to the group at support@groups.big_company.com (that is, *group_name*@groups.*company_domain*).

3. The support engineers add the support group to their contact lists.

   Each engineer must add the group using the **Add Contact by ID** option in the Oracle Messenger window. Each engineer would add answer.support@groups.big_company.com (that is, answer.*group_ name*@groups.*company_domain*).

4. A customer clicks the **Get Help** button on the web page with the integrated application.

5. The customer sees the Oracle Messenger guest user chat window, enters a question, and clicks **Send**.

6. The message is sent to the answer.support group. All members receive a notification that a message has been received.

7. A support group member opens the queued chat window and replies to the customer. They can continue to chat using Oracle Messenger, invite others from Big Company to join, or open a Web conference from the chat.

   Each individual chat in which an agent participates appears under a tab in the chat queue window, similar to the way a regular chat window can show multiple simultaneous chats, each under its own tab.

Creating and Using a Broadcast Group

A company can also use group presence services to create a group used to broadcast messages. In the following example, a company with domain name "bigsales.com" has set up a broadcast group named "salesnews" for distributing sales-related information to its sales team.

1. An administrator uses `rtcctl addGroup` to create a group called "salesnews."

2. The sales team members add the support group to their contact lists.

Each member of the sales team must add the group using the **Add Contact by ID** option in the Oracle Messenger window. Each member would add salesnews@groups.big_company.com (that is, *group_name*@groups.*company_ domain*).

3. Any group member can now send a message to the group exactly as they might send a mail to an individual contact. The message is sent to the salesnews group.

4. All members receive the message, and can reply to it.

addGroup

Adds a new group for group presence services.

```
rtcctl> addGroup -groupname group_name -type group_type -owner group_owner
-subscription group_subscription_type -permission permission_value
-groupdisplayname group_display_name
```
Creates a group with the given parameter values. The values for each option are:

- *group_name*: The name of the group that is prepended to @groups.*company_domain*. This is the group ID that members of the group would enter to add the group to their contacts list, and the ID that is used by the integrating service to post messages to the group.

- *group_type*: Either **A** for an answer group, or **B** for a broadcast group, as described in "Creating and Using an Answer Group" on page 4-18 and "Creating and Using a Broadcast Group" on page 4-18.

- *group_owner*: The Single Sign-On login name of the person who manages this group.

- *group_subscription_type*: The required value is **S** for self- subscription (an Oracle Messenger user must manually add themselves to the group). This type will be expanded in future releases.

- *permission_value*: Either **O** for open subscription (any Oracle Messenger user can add themselves to the group), or **R** for restricted to those members the administrator assigns with the `addGroupMember` command.

- *group_display_name*: The name of the group as it appears in the Oracle Messenger window.

Example 1: Creating a Restricted Support Group

To create a restricted group that only members you identify can join, enter:

```
rtcctl> addGroup -groupname widget_support -type A -owner
susan.smith@mycompany.com -subscription S -permission R -groupdisplayname "Widget
Support Team"
```

The type value of **A** means this group lets members respond to individual requests to answer questions in a queued chat window. Questions are posted by users through an integrated service, as discussed in "Creating and Using an Answer Group" on page 4-18. Integrated services would post messages to this group at widget_support@groups.mycompany.com, where mycompany.com is the domain name of this company.

The permission type of **R** means you must use the `addGroupMember` command to add any members to the group.

Example 2: Creating an Open Broadcast Group

To create a group that any Oracle Messenger user at your company may subscribe to in order to send and receive queued broadcast messages about sales issues, enter:

```
rtcctl> addGroup -groupname sales_info -type B -owner sam.jones@mycompany.com
-subscription S -permission O -groupdisplayname "Sales Information Blasts"
```

The type value of **B** means this group allows members to send a broadcast message to everyone else in the group.

The permission type of **O** means all Oracle Messenger users can add themselves to the group if they wish. They do so through the Oracle Messenger window, by choosing **Add Contact by ID** and entering sales_info@groups.mycompany.com (where mycompany.com is the company domain name).

addGroupMember

Adds a user to a specific group created for group presence services. The addGroupMember command is the only way you can add members to a group with subscription permission set to **R** (restricted).

```
rtcctl> addGroupMember -groupname group_name -username member_name -nickname
member_nickname
```

Adds a member to a named group, using the user's Single Sign-On user name. The assigned nickname appears in the **queued chat** window when the user responds to a group service request.

Example: Adding a New Member

To add member Sally Roe to the widget_support group, enter:

```
rtcctl> addGroupMember -groupname widget_support -username sally.roe -nickname
"Sally Roe"
```

deleteGroup

Deletes a group created for group presence services.

```
rtcctl> deleteGroup -groupname group_name
```

Example: Deleting a Group

To remove the group widget_support, so that members will no longer receive group presence chat requests, enter:

```
rtcctl> deleteGroup -groupname widget_support
```

After you delete a group, you cannot create a new group with the deleted group name. All current members are automatically deleted as members, and the group name no longer appears in their Oracle Messenger windows.

deleteGroupMember

Deletes a user from a group created for group presence services.

```
rtcctl> deleteGroupMember -groupname group_name -username member_name
```

Example: Deleting a Single Member

To delete user John Doe from the widget_support group, enter:

```
rtcctl> deleteGroupMember -groupname widget_support -username john.doe
```

getGroups

Displays a list of all groups created for group presence services.

```
rtcctl> getGroups
```

Example: Listing All Groups for This System

To list all groups for the current system, enter:

```
rtcctl> getGroups
Groups:

Group IM Address: widget_support@groups.mycompany.com
Group Display Name: Widget Support Team
Owner IM Address: susan.smith@mycompany.com
Type: A
Subscription Type: S
Subscription Permission: R
Number of Members: 5

Group IM Address: sales_info@groups.mycompany.com
Group Display Name: Sales Information Blasts
Owner IM Address: sam.jones@mycompany.com
Type: B
Subscription Type: S
Subscription Permission: 0
Number of Members: 20
```

This example shows the output for the two sample groups described for the addGroup command. Note that the "Subscription Type" shown is a required value; this type will be expanded in future releases, but for Oracle Real-Time Collaboration 10*g* Release 1 (10.1.2) the only value is S.

getGroupMembers

Displays a list of all members of a group created for group presence services.

```
rtcctl> getGroupMembers -groupname group_name
```

Example: Listing All Members of a Group

To display members for your widget_support group, enter:

```
rtcctl> getGroupMembers -groupname widget_support@groups.mycompany.com
Members of group 'widget_support@groups.mycompany.com':

Member IM Address: susan.smith@mycompany.com
Member Nickname: Susan Smith

Member IM Address: sally.roe@mycompany.com
Member Nickname: Sally Roe
...
```

Testing and Monitoring the System

The `getState`, `getPids`, `getMonitorStats`, and `runTests` commands let you view the state of various components and processes, and run quick tests on instances or components.

getState

Shows the state of components in any instance. See Table 4–1 for the valid values for component and instance options.

```
rtcctl> getState [-i instance-name]
```
Show the state of all the components in the current instance. Use -i to show the state of components in an instance with the given name.

```
rtcctl> getState -cid component-ID
```
Show the state of the component with the given ID.

```
rtcctl> getState -cname component-name [-i  instance-name]
```
Show the state of the component of the given name in the current instance. If -i is used, it shows state of the component with the given name in the given instance.

```
rtcctl> getState -ct component-type [-i  instance-name]
```
Show state of the component with the given type in the current instance. If -i is used, it shows state of the component with the given type in the given instance.

getState Ouput

The getState command returns the following responses for most components:

- UP: This component is running.

- DOWN: This component is not running.

- DISABLED: This component has been disabled using the ProcDisabled property described on page 3-15.

Responses for the Oracle Presence Server component (rtc-imrtr), however, are different. You may have installed Oracle Real-Time Collaboration core components on more than one instance, and therefore have more than one rtc-imrtr process available, but only *one* of those processes can be running at any given time. Each rtc-imrtr process has a special high-availability monitoring process associated with it, which is started when the rtc-imrtr process is started. The presence server monitoring process will attempt to restart the rtc-imrtr process if it goes down; if the monitoring is not able to restart the rtc-imrtr process, the monitoring process for the next available server will make its rtc-imrtr process the active process. (See "High-Availability Process Manager for Oracle Presence Server Process" on page 5-2 for details). The getState command can return any of the following for rtc-imrtr:

- ACTIVE-OK: This is the current, active rtc-imrtr process, and it is up.

- ACTIVE-FAILURE: This is the active rtc-imrtr process but it is not running (the high-availability process maybe be having trouble restarting it).

- STANDBY: This is not the active rtc-imrtr process, but it is waiting and ready.

- DOWN: This rtc-imrtr process is down and cannot be restarted. The process (and its associated high-availability process) may have been stopped using a command such as rtcctl stop -cname rtc-imrtr.

Example: Getting the State of All Components

To get the state of all the components in the current instance, enter:

```
rtcctl> getState
ID      COMPONENT_NAME  TYPE        STATUS        NUM_PROCS
10007   rtc-connmgr     connmgr     UP            2
10000   rtc-confsvr     confsvr     UP            4
10006   rtc-imrtr       imrtr       ACTIVE-OK     1
10008   rtc-voiceproxy  voiceproxy  UP            1
```

```
10004   rtcpm           rtcpm       UP          1
10003   rtc-rdtr        rdtr        UP          1
10002   rtc-mx          mx          UP          1
```

In this example, all processes on this instance are running. There are two running Client Connection Manager processes, and four Oracle Web Conferencing Server processes.

getPids

Display the process identifiers for all running processes. See Table 4–1 for the valid values for instance and component options.

```
getPids [-i instance-name]
```
Display the process identifiers for either the current instance, or a specified instance if -i is used.

```
getPids -cid component-id
```
Display the process identifiers for a specific instance, by its ID number.

```
getPids -cname component-name [-i instance-name]
```
Display the process identifiers for the component by name. If -i is used, displays the identifiers for the named components in the named instance.

```
getPids -ct component-type [-i instance-name]
```
Display the process identifiers for the component by type. If -i is used, displays the identifiers for the specified components in the named instance.

Example 1: Display All Process Identifiers for an Instance

To display all the process identifiers for the current instance, enter:

```
rtcctl> getPids
ID      NAME               COMPONENT TYPE    PIDS
10007   rtc-connmgr        connmgr           9335
10007   rtc-connmgr        connmgr           9336
10000   rtc-confsvr        confsvr           6101
10000   rtc-confsvr        confsvr           14676
10000   rtc-confsvr        confsvr           5615
10000   rtc-confsvr        confsvr           29730
10006   rtc-imrtr          imrtr             9346
10008   rtc-voiceproxy     voiceproxy        9340
10004   rtcpm              rtcpm             9288
10001   OC4J_imeeting      oc4j              9194
10003   rtc-rdtr           rdtr              9328
10002   rtc-mx             mx                9327
10005   rtcctl             rtcctl            11159
```

Example 2: Displaying Process Identifiers for Components on an Instance

To display the process identifiers for any document conversion servers on instance myinstance.mycompany.com, enter:

```
rtcctl> getPids -ct docconv -i myinstance.mycompany.com
ID       NAME            COMPONENT TYPE    PIDS
10010    rtc-docconv     docconv           3020
```

getMonitorStats

Displays monitoring statistics for a system, instance, or component. See Table 4–1 for the valid values for system, instance and component options. See Chapter 5 for more information about monitoring components.

```
getMonitorStats [-i  instance-name]
```
Display statistics for the current instance or, if -i is used, for a named instance.

```
getMonitorStats -cid component-id
```
Display statistics for a particular component in this instance, by the component ID number.

```
getMonitorStats -cname component-name [-i instance-name]
```
Display statistics for all components of a particular name in this instance or, if -i is used, in a named instance.

```
getMonitorStats -ctype component-type [-i instance-name]
```
Display statistics for all components of a particular type in this instance or, if -i is used, in a named instance.

```
getMonitorStats -system true
```
Display statistics for all components in the system.

```
getMonitorStats -publish true
```
Display statistics for all components in this instance and display them in XML format, for use in integrating with other applications. The -publish option can be used with options that specify system, site, component, or instance.

The statistics shown vary depending on the type of component. The statistics may include any of the following.

- Statistics for Web Conferencing Server components:

  TMTGS: Number of conferences since the process was started

  CMTGS: Number of active conferences

  CLTS: Number of active users

  TMEM: Total memory allocated for this component

  UMEM: Total memory currently used by this component

- Statistics for Voice Conversion Server components:

  AVAIL: Whether the voice conversion server is available

  T1LINE: Whether a T1 line is available

  IN-USE: Number of voice channels currently in use

  IDLE: Number of voice channels idle

  BAD: Number of bad voice channels

Example 1: Displaying Statistics for an Instance

To display statistics for all components in a specific instance, enter:

```
rtcctl> getMonitorStats -i instance1.mycompany.com
Instance - instance1.mycompany.com:
Component Name: rtc-confsvr, Component Type: confsvr
SERVICE_NAME                                   TMTGS CMTGS  CLTS   TMEM     UMEM
confsvr:instance1.mycompany.com.rtc-confsvr.01   1     2     4,708K   4,285K
confsvr:instance1.mycompany.com.rtc-confsvr.11   0     0     4,624K   3,836K
confsvr:instance1.mycompany.com.rtc-confsvr.20   0     0     8,644K   3,457K
confsvr:instance1.mycompany.com.rtc-confsvr.30   0     0     6,368K   3,171K
```

These statistics show four Web Conferencing Servers are running on this instance, and one conference is currently running on rtc-confsvr.01, with two attendees.

Example 2: Displaying Statistics for a System

To display statistics for all components and instances in this system, enter:

```
rtcctl> getMonitorStats -system true
Instance - instance1.mycompany.com:
Component Name: rtc-confsvr, Component Type: confsvr
SERVICE_NAME                                  TMTGS CMTGS  CLTS  TMEM     UMEM
confsvr:instance1.mycompany.com.rtc-confsvr.01    1     2     4,708K   4,285K
confsvr:instance1.mycompany.com.rtc-confsvr.11    0     0     4,624K   3,836K
confsvr:instance1.mycompany.com.rtc-confsvr.20    0     0     8,644K   3,457K
Instance - instance2.mycompany.com:
Component Name: rtc-imrtr, Component Type: imrtr
presence
Component Name: rtc-voiceconv, Component Type: voiceconv
SERVICE_NAME                                 AVAIL T1LINE IN-USE  IDLE   BAD
voiceconv:instance2.mycompany.com.rtc-voiceconv.0 true  true    0       12     0
```

These statistics show one meeting is currently running on rtc-confsvr.01 with two attendees, and there are twelve channels on the Voice Conversion Server available on a T1 line but none currently in use. The Oracle Presence Server (rtc-imrtr) is currently running on this instance.

runTests

Runs Oracle Real-Time Collaboration tests on a specific instance or all instances in the system. See Table 4–1 for the valid values for instance options. See Chapter 5 for more information about using the tests.

```
runTests [-i instance-name]
```
Run tests in the current instance. Use -i to run all the tests in an instance with the given name.

```
runTests -testlist test-name, test-name, test-name...
```
Run tests from a list of tests.

The possible tests are:

- `apptest` web client service test

- `dbtest` database connectivity test

- `docconvtest` document conversion service test

- `emailtest` e-mail configuration test

- `imtest` Oracle Messenger system test

- `mtgtest` conference service test

- `voiceconvtest` voice conversion service test

See "Monitoring Service Availability" on page 5-2 and "Running Configuration Tests" on page 5-7 for more details about what these tests do and how to respond to them.

```
runTests -system true
```
Run tests on all the instances in the system.

```
runTests -publish true
```
Run tests on the current instance with the output displayed in structured XML tags. This option can be used in scripts to provide output to services integrated with Oracle Real-Time Collaboration.

```
runTests -v true
```

Run tests on the current instance with the verbose option to display any messages regarding test failures.

```
runTests -cluster true
```
Run the tests on a cluster of instances. If this instance is not part of a cluster, the tests are only run on the current instance.

Example 1: Testing an Instance

After installing an instance, enter the following to see if the instance is configured properly and working. The runTests command will run all appropriate tests for components installed on this instance.

```
rtcctl> runTests
Instance - myinstance.mycompany.com
TEST NAME       SUCCESS
mtgtest         true
voiceconvtest   false
docconvtest     false
dbtest          true
apptest         true
emailtest       true
imtest          true
```

In this example, tests for the Voice Conversion and Document Conversion Servers are false, most likely because these optional servers have not been installed. To confirm this, the administrator might run each test again with the verbose option:

```
rtcctl> runTests -v true -testlist voiceconvtest
Instance - myinstance.mycompany.com:
TEST NAME       SUCCESS MESSAGE
voiceconvtest   false   No Active Voice Conversion Server Available.
```

Alternately, the administrator can view more details about the reports by viewing the **Status** report under the **System** tab.

Example 2: Running a Single Test

To run the conference test alone, enter:

```
rtcctl> runTests -testlist mtgtest
Instance - myinstance.mycompany.com
TEST NAME               SUCCESS
mtgtest                 true
```

Example 3: Running Multiple Tests with the Verbose Option

To run multiple tests with verbose display, enter:

```
rtcctl> runTests -testlist mtgtest,emailtest,imtet -v true
Instance - myinstance.mycompany.com
TEST NAME               SUCCESS   MESSAGE
mtgtest                 true
emailtest               true
imtet                   false     Unknown test
```

In the example, one option was entered incorrectly (imtet instead of imtest), so the message displayed by the -v option reports the problem.

Getting Help and Quitting rtcctl

The `help` command displays help about all commands available in rtcctl. You can exit the rtcctl command-line interface by entering `exit` or `quit`.

help

Displays the list of rtcctl commands with descriptions.

```
rtcctl> help
Commands are:
start - Start a specified component or complete instance.
stop - Stop a specified component or complete instance.
getstate - Gets the state of a specified component or complete instance.
...
```

exit or quit

Leaves the rtcctl command-line interface. You can use either `exit` or `quit`.

```
> $ORACLE_HOME/imeeting/bin/rtcctl
rtcctl>
rtcctl> exit
>
```

5

Monitoring Oracle Real-Time Collaboration Processes

This chapter describes how you can monitor Oracle Real-Time Collaboration components to provide quality of service for conferences and instant messages and uninterrupted availability for conference and messaging services. This chapter contains the following sections:

- Automatic Process Monitoring

- Monitoring Service Availability

- Monitoring Components

- Monitoring Current Conferences

- Running Configuration Tests

- Checking System Configuration Status

- Oracle Real-Time Collaboration Monitoring Interfaces

Automatic Process Monitoring

The Oracle Real-Time Collaboration Process Manager (rtcpm) is a Java-based process that runs as a daemon, managing all Oracle Real-Time Collaboration processes in an instance. The Process Manager opens an HTTP listening point to accept requests to start and stop processes. Specifically, it does the following:

- Periodically pings all Oracle Real-Time Collaboration processes in an instance, to check if the process is active.

- Automatically restarts inactive processes (processes that do not respond to the ping).

The Process Manager monitors the following Oracle Real-Time Collaboration component processes:

- Oracle Web Conferencing Server (confsvr)

- Client Connection Manager (connmgr)

- Oracle Presence Server (imrtr)

- Multiplexer (mx)

- Redirector (rdtr)

- Voice Proxy Server (voiceproxy)

Process Manager and Oracle Process Management and Notification

The Process Manager is integrated with the Oracle Process Management and Notification system (OPMN) when you install Oracle Real-Time Collaboration. The OPMN system monitors the Process Manager and automatically restarts rtcpm if it appears to be inactive. The Process Manager can recover its state without affecting the processes that it was monitoring before it went down.

Process Manager and rtcctl

When you enter the `rtcctl start` command, Oracle Process Management and Notification and rtcpm (if necessary) automatically start. Then rtcpm starts all the other Oracle Real-Time Collaboration processes it needs to manage.

If you use `rtcctl start` with another option (for example, to start a specific component or instance) the Process Manager process must already be running.

The `rtcctl stop` command with no arguments shuts down rtcpm and all of the processes it is managing.

High-Availability Process Manager for Oracle Presence Server Process

The Oracle Presence Server provides the services required for instant messaging, chat conferences, and publishing presence of Oracle Messenger users. You may have installed Oracle Real-Time Collaboration core components on more than one instance, and therefore have more than one presence server process available, but only *one* of those processes can be running at any given time. Each server process has a special high-availability monitoring process associated with it, which is started when the server process is started. The monitoring process will attempt to restart the presence server process if it goes down; if the monitoring process is not able to restart the server process, the monitoring process for the next available presence server will make its server the active process.

Each presence server process has its own high-availability process. When you stop the server process (using `rtcctl stop -cname` *rtc-imrtr*), the high-availability process will stop as well. As with all Oracle Real-Time Collaboration processes, you can view logs for the high-availability process in the log file directory, at $ORACLE_HOME/imeeting/logs/imHaProcess.

Monitoring Service Availability

Although processes to support services such as Web Conferencing may be running, you also must ensure that the processes can actually support those services on a particular instance. Use the `rtcctl runTests` command to run tests to determine the availability of Oracle Real-Time Collaboration services.

Oracle Real-Time Collaboration also publishes interfaces for service availability monitoring that can be integrated into any monitoring infrastructure. See "Oracle Real-Time Collaboration Monitoring Interfaces" on page 5-8 for more information.

For details about the syntax of `rtcctl runTests`, see "Testing and Monitoring the System" on page 4-21.

The following sections cover these service tests:

- Web Client Service Availability (`apptest` option)
- Database Connectivity (`dbtest` option)
- Document Conversion Service Availability (`docconvtest` option)

- [Oracle Messenger Service Availability](#) (`imtest` option)

- [Web Conferencing Service Availability](#) (`mtgtest` option)

- [Voice Conversion Service Availability](#) (`voiceconvtest` option)

See ["Running Configuration Tests"](#) on page 5-7 for details about using the additional `runTests` command options that let you check system configuration.

Web Client Service Availability

The `apptest` option tests whether the Applications tier can access the Oracle Real-Time Collaboration Web Client pages through HTTP.

If this test fails, check that the Oracle HTTP Server and OC4J_imeeting processes are running. If they are not running, stop and restart them as follows:

```
$ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=HTTP_Server
$ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=HTTP_Server
$ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=OC4J process-type=OC4J_
imeeting
$ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=OC4J process-type=OC4J_
imeeting
```

Database Connectivity

The `dbtest` option tests the connectivity between Oracle Real-Time Collaboration and the database.

If this test fails, use `sqlplus` to log in to the database from the Applications tier. If that connection is successful, then stop and restart the OC4J_imeeting process:

```
$ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=OC4J process-type=OC4J_
imeeting
$ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=OC4J process-type=OC4J_
imeeting
```

Document Conversion Service Availability

The `docconvtest` option tests the availability of the Document Conversion service by uploading a test document and trying to convert that document using the Document Conversion Server available to the instance.

If this test fails, it may be that no Document Conversion Server has been installed. If you have installed a server and have also created clusters, make sure that the server has the same InstanceLocation value as the instances it serves. Use the [getProperty](#) command as described on on page 4-11 to see the InstanceLocation value. See ["Configuring Clusters"](#) on page 3-26 for details about how to set the value.

If you have set up a Document Conversion Server for this instance, use `rtcctl getState` on the Oracle Real-Time Collaboration Applications tier to make sure the Applications tier processes are up and running. If they are, stop and restart the Document Conversion Server:

```
%ORACLE_HOME%\imeeting\bin\rtcctl
rtcctl> stop -ct docconv
rtcctl> start -ct docconv
rtcctl> getState
```

If the test still fails, stop and restart the OC4J_imeeting process:

```
$ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=OC4J process-type=OC4J_
```

```
imeeting
$ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=OC4J process-type=OC4J_
imeeting
```

Oracle Messenger Service Availability

The `imtest` option tests that Oracle Messenger services are available by mimicking the flow of two users sending and receiving messages.

If users are able to sign in to the Oracle Messenger, and the `rtcctl getState` command shows that all Oracle Messenger components are running, but the imtest shows as failed in the Status report under the **System** tab, you should check the connectivity to the database from the Oracle Presence server. Make sure that the `tnsnames.ora` file on the Applications tier is correctly configured to let you to run `sqlplus` from `$ORACLE_HOME` to the database containing the RTC schema.

If, after several hundred users were online with Oracle Messenger, the Oracle Real-Time Collaboration server was restarted and the imtest fails, wait and restart the imtest again. Oracle Messenger is configured to auto-reconnect when a server disconnects. All users who were online and who have opted to save their login information will auto-reconnect after one to six minutes, so there is considerable load on the server-side for authenticating and logging in all the users. The imtest is not expected to succeed reliably during that time. However, approximately six minutes after restarting the Oracle Presence server, the imtest should pass consistently.

Web Conferencing Service Availability

The `mtgtest` option tests the Web Conferencing Server by mimicking the flow of a user going through the Web Client to start an instant conference. It makes sure that the conference starts successfully on one of the available conference servers in an instance. It then joins another client to the same conference, and makes sure that the new client gets a conference state consistent with what the host client receives. Then it ends the test conference.

If this test fails, do the following:

1. Use `rtcctl getState` to make sure that one or more multiplexer (mx) and one or more conferencing server (confsvr) processes are up in this instance. If they are not, skip to Step 4. If they are, go on to Step 2.

2. Go to the login page for your Oracle Real-Time Collaboration Web Client, for example, `http://yourcompany.com/imtapp/app/prelogin.uix`. What you do next depends on the error message you see in the browser:

   - If you see a DNS server error, stop and restart the Oracle HTTP Server:

     ```
     $ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=HTTP_Server
     $ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=HTTP_Server
     ```

   - If you see a 500 Internal Server error, stop and restart both the Oracle HTTP Server and the OC4J_imeeting processes:

     ```
     $ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=HTTP_Server
     $ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=HTTP_Server
     $ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=OC4J
     process-type=OC4J_imeeting
     $ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=OC4J
     process-type=OC4J_imeeting
     ```

   - If you see the login page, log in.

If you cannot log in, then there is a Single Server Sign-On problem.

If you can log in, go on to Step 3.

3. On the Oracle Real-Time Collaboration home page, try to start an instant conference.

   If you see the message, `Cannot find suitable collaboration server`, stop and restart OC4J_imeeting as described in Step 2.

4. If the `mtgtest` test still fails, enter the following on the Oracle Real-Time Collaboration Applications tier:

   ```
   $ORACLE_HOME/imeeting/bin/rtcctl getMonitorStats
   ```

   If no results are shown, stop and restart the Web Conferencing Applications tier:

   ```
   $ORACLE_HOME/imeeting/bin/rtcctl
   rtcctl> stop
   rtcctl> start
   rtcctl> getState
   ```

Voice Conversion Service Availability

The `voiceconvtest` option tests the Voice Conversion service for streaming voice data, by attempting to connect to an available Voice Conversion Server, making sure the T1 line is up, that voice channels are available, and that the server is able to stream audio.

If this test fails, it may be that no Voice Conversion Server has been installed. If you have installed a server and have also created clusters, make sure that the server has the same InstanceLocation value as the instances it serves. Use the `rtcctl getProperty` command to see the InstanceLocation value. See "Configuring Clusters" on page 3-26 for details about how to set the value.

If the test fails, do the following on the Applications tier where the Voice Conversion Server instance is running (a Windows machine):

```
%ORACLE_HOME%\imeeting\bin\rtcctl
rtcctl> stop -ct voiceconv
rtcctl> start -ct voiceconv
rtcctl> getState
```

If the test still fails, stop and restart the Web Conferencing Applications tier:

```
$ORACLE_HOME/imeeting/bin/rtcctl
rtcctl> stop
rtcctl> start
rtcctl> getState
```

Viewing Automated Test Results in the Status Page

The Status report available from the **System** tab includes the results of service availability tests run periodically on the system. The tests include those for the Web Conferencing services, Document and Voice Conversion services, and Oracle Messenger services. You can click to expand or contract hierarchical lists of instances and their components.

The report also shows information about active conferences and chat sessions, the properties set for the system, and details about currently running Web Client sessions.

Only users with the businessadmin role can use the **System** tab. See "Setting User Roles" on page 4-15 for details about setting user roles.

Setting Service Availability Tests

You can set up a monitoring infrastructure to periodically ping the Oracle Real-Time Collaboration core components. For example, assuming the URL for the instance is my.company.com, you can set a cron job (on UNIX or Linux) to ping the following URLs. You can then plug the output in to an alert management system. You can test for any of the services that the `runTests` command can test, as well as run any of the configuration tests. The syntax of the URL is:

```
http://my.company.com/imtapp/RtcServiceTests?test_name=true
```

The *testname* can be any of the following:

- `apptest` web client service test
- `dbtest` database connectivity test
- `docconvtest` document conversion service test
- `emailtest` e-mail configuration test
- `imtest` Oracle Messenger system test
- `mtgtest` conference service test
- `voiceconvtest` voice conversion service test

Monitoring Components

You can use the `rtcctl getMonitorStats` command to view monitoring data for some of the key components in the system.

For each Web Conferencing Server on an instance, you can list the number of active conferences and users, the total available and used memory, and the total number of conferences since this process was started.

For each Voice Conversion Server on an instance, you can list the total number of voice streaming channels, currently used channels, bad channels, and the status of the T1 line.

For the running Presence Server on an instance, you can list its status.

The `-publish true` option outputs XML data. If you have your own monitoring infrastructure, you can run this process periodically to gather XML data that your monitoring system can use for historical analysis.

For details about `getMonitorStats` syntax, see "Testing and Monitoring the System" on page 4-21.

Monitoring Current Conferences

The **Monitor** tab on the Oracle Real-Time Collaboration Web Client pages lets you interactively monitor the conferences that are currently running on the system. Only users with the businessmonitor or businessadmin role can use the **Monitor** tab. See "Setting User Roles" on page 4-15 for details about setting user roles.

The **Current Conference Status** page lists all the conferences that are currently running on the system. For each conference, it provides the conference ID, conference title, host name, conference type, site, start time, total attendees, and current status of

the conferences. If many conferences are running on this server, you can choose to display conferences by ID, conference title, host name, or the site from which this conference was started.

Clicking on the **Conference Details** link lets you choose to view basic details about the conference (start date and time, host name, and so forth).

You can click **Diagnostics** on the Details page to view all events that occur for this conference as it runs. You can use this page to monitor important conferences, so that you can take action if problems occur.

- **Archived log file** lists every event as it takes place during this conference, including actions such as entering or exiting the conference, or changing the properties of the conference (for example, the host assigns presenter status to a participant). Completed log files are also available from **Logs** under the **System** tab, and from the report for this finished conference under the **Reports** tab (see "Web Conference Reports" on page 6-2 for details).

- **Instance diagnostics** lists details about the Oracle Real-Time Collaboration server processes as they run. You can use this information to manage current processes and to end processes directly from this page, if desired. This report is also available from the report for this finished conference under the **Reports** tab.

Clicking the **Attendees** tab on the Details page displays the list of attendees that are participating in this conference. Click **Attendee Details** next to the attendee's name to view details about how long the attendee has been in the conference, whether they are attending anonymously, whether they have had to reconnect to the conference, and whether they are using streaming voice. You can also see the operating system and screen resolution of the computer the attendee used to connect to the conference, and the connection type used to connect the client.

Running Configuration Tests

You can use the `runTests` command to confirm that the Oracle Real-Time Collaboration system has been configured properly. These tests need to be run only once after an installation, and need not be run periodically. The following sections describe each test and the option you use to run it.

See "Testing and Monitoring the System" on page 4-21 for details about the syntax of the `runTests` command and its options.

The following section covers this configuration test:

- E-Mail Configuration Test (emailtest option)

See "Monitoring Service Availability" on page 5-2 for details about using the additional `runTests` command options that let you test the availability of different Oracle Real-Time Collaboration services.

E-Mail Configuration Test

To let meeting hosts to send e-mail invitations from a scheduled conference, an administrator must set the enterprise SMTP host and port through Oracle Web Conferencing properties. The `emailtest` option makes sure that these properties are set and that the SMTP server is accessible from the Oracle Real-Time Collaboration Applications tier.

If the test fails, follow the steps in "Setting Up Oracle Real-Time Collaboration E-mail and Administration" on page 2-3.

Checking System Configuration Status

The Configuration status report available from the **System** tab shows the current settings for all hosts for this Oracle Real-Time Collaboration system. It displays the host name, type of service, deployment information (whether the host is in the intranet, Internet, or DMZ), instance location if any, operating system, and hardware information (platform, CPU, and total memory). The report also has an **Edit** button to let you interactively edit some of the properties for each server listed, and a **Delete** button to let you delete the service.

Only users with the business administrator role can use the **System** tab. See "Setting User Roles" on page 4-15 for details about setting user roles.

Oracle Real-Time Collaboration Monitoring Interfaces

This section discusses Oracle Real-Time Collaboration monitoring interfaces that can be plugged in to any monitoring infrastructure. There are two types of interfaces:

- **rtcctl interfaces** for getting monitoring data about key Oracle Real-Time Collaboration components
- **Servlet interfaces** for monitoring service availability

You use the `rtcctl getMonitorStats -publish true` command to gather component statistics in XML format for output to a monitoring infrastructure. See "Monitoring Components" on page 5-6 for more details about the statistics gathered.

By default, you can use rtctest.jsp to run the servlet as an authenticated user who has administrator privileges. If you want to run the servlet without requiring authentication, you must set the RtcTestServlet property to true, and use `http://host:port/imtapp/RtcServiceTests`.

If enabled, RtcServiceTests lets the service tests of the `runTests` command be run by any monitoring infrastructure. RtcServiceTests acts as an API that makes all Oracle Real-Time Collaboration tests available as a Web application to HTTP-based Web application monitoring. The servlet is accessible to standard HTTP-based monitoring clients, and its results are designed for automated analysis.

You can display the output of your monitoring infrastructure under the **Availability** sub-tab of the **Reports** tab, by pointing that page to a web-based report you generate. See "Configuring the Availability Report" on page 3-51 for details.

Both rtctest.jsp and RtcServiceTests use the inputs listed in Table 5–1, and produce the same output.

Running the Test Servlet as an Authenticated User

To run the servlet as an authenticated user, such as an administrator with businessadmin privileges, you use rtctest.jsp, as follows:

```
http://host:port/imtapp/app/rtctest.jsp?alltests=true
```

Running the Test Servlet Without Requiring Authentication

If you want to run the servlet without requiring authentication, you must set the RtcTestServlet property to true, and use RtcServiceTests, as follows:

```
http://host:port/imtapp/app/RtcServiceTests?alltests=true
```

For security reasons, access to RtcServiceTests is disabled by default. If you enable access to it, it is recommended that you use Oracle HTTP server access control or some other mechanism to limit access to RtcServiceTests.

RtcTestServlet

Description: Sets whether RtcServiceTests can be run.

Default Value: false

Valid Value: false, true

Scope: system

Example: To enable access to RtcServiceTests without requiring authentication, set the property to true:

```
rtcctl> setProperty -pname RtcTestServlet -pvalue true -system true
```

Inputs to the Test Servlet

The servlet gets all input information from HTTP requests sent by the client. The servlet accepts parameters either through a URL query string or within a POST body.

Input parameters control which tests are run and the information that is returned in the case of success or failure. Table 5–1 lists all the input parameters.

Table 5–1   Servlet Inputs

Name of Test	Options	Default	Function
alltests	true, false	false	Runs all tests supported by the servlet (other test selection parameters are ignored).
mtgtest	true, false	false	Runs the end-to-end conference test to verify that conference functionality is available.
voiceconvtest	true, false	false	Runs the Voice Conversion Server test to verify that voice support is available for conferences.
docconvtest	true, false	false	Runs the Document Conversion Server test to verify that document conversion is available.
dbtest	true, false	false	Runs the Oracle Real-Time Collaboration Repository test to verify that it is available.
imtest	true, false	false	Runs the end-to-end Oracle Messenger test to verify that messaging services are available.
errorcode	any valid HTTP response code	500	Sets the HTTP response code sent when any of the selected tests fail.
successcode	any valid HTTP response code	200	Sets the HTTP response code sent when all of the selected tests succeed.
errormsg	Any string	null	Includes a message in the response body when any of the selected tests fail. (Note: the response body may include additional text.)
successmsg	Any string	"Test(s) successful."	Includes a message in the response body when all of the selected tests succeed. (Note: the response body may include additional text.)

Output from the Test Servlet

The servlet provides results in an HTTP response. Results either report that all of the selected tests succeeded or that some test failed. If multiple tests are selected with

input parameters, the result provides no details about which particular tests failed. Furthermore, no messages associated with the failure are returned.

The result of the test or tests is reflected in both the HTTP response code and, optionally, in a static string returned in the response body.

Because the test reports only aggregate results when running multiple tests, if you need fine-grained detail in your results, run multiple tests, each calling one of the individual service availability tests. If you just want a single indicator of the system's health, run a single test using the alltests option.

Examples of Running the Test Servlet

Following are some examples of output from the test servlet.

```
http://host:port/imtapp/app/rtctest.jsp
```
Confirms that the test servlet has been properly installed, but does not run any tests.

```
http://host:port/imtapp/RtcServiceTests
```
Confirms that the test servlet has been properly installed, but does not run any tests. You must set the RtcTestServlet property to true to use RtcServiceTests since it is disabled by default.

```
http://host:port/imtapp/RtcServiceTests?alltests=true
```
Runs all of the tests returning the standard error (500) and success (200) codes.

```
http://host:port/imtapp/RtcServiceTests?mtgtest=true&errorcode=404
```
Runs only the end-to-end conference test and returns 404 if the test fails.

```
http://host:port/imtapp/RtcServiceTests?mtgtest=true&voiceconvtest=true&errormsg=m
tgorvoicefailed
```
Runs the conference and voice tests and reports a custom message on failure, in addition to a standard 500 response code.

Limitations of the Test Servlet

The servlet is currently limited in the following way. Because the servlet runs in an OC4J_imeeting process, the inaccessibility of the OC4J_imeeting will prevent granular detection of failures in other Oracle Real-Time Collaboration components, such as the Web Conferencing or Document Conversion Servers. However, this limitation is minor, because OC4J_imeeting is the gatekeeper for all Oracle Real-Time Collaboration services. Inaccessibility of OC4J_imeeting is equivalent to inaccessibility of all Oracle Real-Time Collaboration services from a client's perspective.

During the shutdown phase of Oracle Application Server Containers for J2EE (OC4J), the OC4J container may send a response code of 200 and a body of size 444 without actually invoking the test servlet or any tests. The message returned is probably a generic message about the servlet not being loaded. Because the standard test success code is 200, a monitoring application may incorrectly interpret this result as test success.

It is unlikely that the OC4J behavior can be changed. Instead, monitoring applications must do either of the following:

- Search the actual response body to be sure that the tests actually ran. Searching for "<test-failure-count>0" is a positive confirmation that the tests ran and that none failed.

- Customize the monitoring application to expect a response code other than 200 for test success using the "successcode" query string parameter. For example, the unassigned HTTP success code 299 could be used to indicate actual test success.

The monitoring application should then be configured to treat anything other than 299 as a test failure. For example:

```
http://host:port/imtapp/RtcServiceTests?alltests=true&successcode=299
```

If the monitoring application cannot be customized to recognize an alternate response code for success or to search for a particular pattern in the response body, then the results of the monitoring application must be treated as unreliable during OC4J shutdown. Tests failures during a shutdown are expected because the OC4J will be temporarily unavailable, but test successes around the time of shutdown are equally unreliable under these conditions.

6

Historical and Statistical Reports for Oracle Real-Time Collaboration

Oracle Real-Time Collaboration provides reports about conference histories, usage trend information, user feedback analysis, system incidents, and system security. Some aspects of these features require postinstallation configuration. This chapter describes the configuration steps, then describes how you can use the Oracle Real-Time Collaboration reports to manage your system. It contains the following sections:

- Oracle Real-Time Collaboration Archives Versus Reports

- Web Conference Reports

- Oracle Real-Time Collaboration Usage Reports

- Oracle Real-Time Collaboration Feedback Report

- Oracle Real-Time Collaboration Quality of Service Reports

- Oracle Real-Time Collaboration Security Report

- Oracle Real-Time Collaboration System Status Reports

- Oracle Real-Time Collaboration System Logs

- Publishing an Oracle Real-Time Collaboration Availability Report

- E-mailing Reports to Specified Recipients

The reports discussed in this chapter are available from both the **Reports** tab and the **System** tab. Users with business monitor or business administrator privileges can view the reports available from the **Reports** tab. Only users with the business administrator role can view the reports available from the **System** tab. See "Setting User Roles" on page 4-15 for details about how to set these roles.

> **Note:** This chapter provides an overview of the types of data presented in the reports, and how you can use them. Detailed descriptions of each item in each Oracle Real-Time Collaboration report are included in the online Help. For details about individual data points, click **Help** on any report Web page.

Oracle Real-Time Collaboration Archives Versus Reports

Oracle Real-Time Collaboration keeps records about Web conferences and instant messages in two different ways:

- **Archives** contain the historical data about individual conferences and instant messages. Archives are used by conference hosts and attendees, or persons who sent or received instant messages, to review the data they exchanged.

- **Reports** provide diagnostic and management information to system administrators to let them analyze system performance.

The Archives pages show only those conferences or messages that the current user participated in, or conferences that the user has been granted access to by a conference host. Administrators do not have any special privileges to view archives of conferences or messages that they did not participate in.

If your users request access to a conference archive, forward their request to the conference host, who can assign the user privileges to view the conference using the **Update** button in the Archives pages. The online Help for Oracle Real-Time Collaboration describes the Archive page options in detail.

For more information about the creation and contents of archives, see Chapter 7.

Web Conference Reports

The Conferences page under the **Reports** tab lets you view information about each individual conference. Users with either the business monitor or business administration roles may view the tab and its reports.

The main Conferences page includes basic information about each conference, including its duration, the list of attendees, any ratings or comments made by the host, and whether the conference finished normally or was abandoned or otherwise failed. You may want to use this page to get a general idea about conference traffic for a specific time period (Last 1 Day, Last 7 Days, and so forth). You also use this page to locate specific conferences in order to get more details about them. You can use the Filter By field to search for specific conferences by ID, title, or host's login name, or to search for conferences held on a particular site.

Clicking the **Conference Details** icon displays the Details page, showing basic conference statistics such as start and stop times, whether voice or data recording was used, whether recordings have been played back from the conference archives, and any feedback from the conference host.

Clicking the **Diagnostics** tab on the Details page displays a page that lists any events that took place during the conference. You can choose to view only errors or all events. You can also click links to view further diagnostic detail:

- **Archived log file** lists every event that has taken place during this conference, including actions such as entering or exiting the conference, or changing the properties of the conference (for example, the host assigns presenter status to a participant). Use this page to review events that occurred during a conference, especially when troubleshooting a conference that may have had problems. This report is the same as the running log file report available from the **Monitor** tab while the conference was running (see "Monitoring Current Conferences" on page 5-6 for details). All log files are also available from **Logs** under the **System** tab.

- **Instance diagnostics** lists details about the Oracle Real-Time Collaboration server processes running on the instance that served this conference. You can use this information to manage current processes. You can also end processes directly from this page, if desired. This report is the same as the running diagnostics report available from the **Monitor** tab while the conference was still running.

Clicking the **Attendees** tab on the Details page displays the list of attendees that participated in this conference, and how long they participated. To see more information about an individual attendee, click **Attendee Details** next to the attendee's name. The resulting page lets you troubleshoot any specific issues an attendee may have had in a conference, including:

- Information about how the attendee participated in the conference, including how long the attendee was in the conference, and whether the attendee attended anonymously, had to reconnect to the conference during the session, or used streaming voice.

- The operating system and screen resolution of the computer the attendee used to connect to Oracle Web Conferencing, and the connection type used to connect the client to the Web Conferencing Server.

Oracle Real-Time Collaboration Usage Reports

The Usage Report pages under the **Reports** tab provide metrics to let you analyze how the Oracle Real-Time Collaboration system is being used. You can check these reports to determine what conference modes and features are most often used, what messaging features are being used, who are the top users, and what sites have the most conference activity. Users with either the business monitor or business administration roles may view the report.

Four reports provide usage metrics. Each metric is based on one of two measurements:

- Time (minutes or hours)

- Usage numbers (number of users, conferences, messages, and so forth)

You can use the drop-down lists at the top of the report to display the data summarized by Days, Weeks, Months, Quarters, or Years. You can change the default ranges of these periods using the properties described in "Configuring Reports" on page 3-49.

All reports give the count of various usage events for the current period and the percentage change over the previous period. Status arrow indicators let you easily see whether a rating trend is up or down. Graphs shows the trend of the events.

The **Key Usage Metrics** report provides summaries of the main metrics from each of the other reports. Use this report to get a high-level view of the number of persons using the Oracle Real-Time Collaboration system and the number and types of activities running on the system for the period.

The **Web Conferencing** report displays all usage statistics related to Web Conferencing. Use this report to determine the numbers and types of users and conferences; the lengths and sizes (in terms of attendees) of conferences; the features used within conferences (document sharing, voice streaming, and so forth); the number of recordings and playbacks; and the top users and sites for the time period.

The **Presence and Chat** report displays all usage statistics related to Oracle Messenger. Use this report to determine the number of messaging users, text and voice chat sessions, chat conferences, Web conferences started from chat, and files transferred during chat sessions for the period.

The **Integration Services** report shows what requests were made of Web Conferencing, Presence, and Messaging services by integrated services over the past week. Use this report to determine how much traffic on the system is being generated by the custom applications that you have created using Oracle Real-Time

Collaboration SOAP and XML services. For details about creating custom applications, see *Oracle Real-Time Collaboration Application Developer's Guide*.

> **Note:** The following data is available only in reports for the full Oracle Real-Time Collaboration system:
>
> - Site metrics in the Web Conferencing section of the Key Usage Metrics report.
> - Presence and Chat statistics in the Integration Services section of the Key Usage Metrics report.
> - Top user and top site data in the Web Conferencing report.
> - Presence Queries metrics in the Integration Services report.
> - All data in the Presence and Chat report.
>
> If you are logged in as a site administrator or are viewing usage reports for a site, the data listed here will not appear.

Oracle Real-Time Collaboration Feedback Report

A feedback form that appears at the end of every conference lets hosts give a comment (raw text feedback) in addition to rating a conference excellent, good, or poor, or providing no rating. The Feedback page under the **Reports** tab provides metrics evaluating this feedback, and lists the detail of every text comment. Use this report to watch for frequently asked questions, gather information about common user perceptions and issues, and respond to problems. Oracle strongly suggests that administrators review feedback reports at least once a week. Users with either the business monitor or business administration role may view the report.

> **Note:** Some Oracle Real-Time Collaboration properties let you link hosts and attendees from the default feedback form to another URL, where you may display a custom-built Web form to gather additional feedback. Feedback you gather with a custom form is not included in this report. You can also use a property to suppress the feedback form entirely; if it is set to true, this report will not contain data. See "Configuring Feedback Methods" on page 3-47 for details.

You can use the drop-down lists at the top of the report to display the data summarized by Days, Weeks, Months, Quarters, or Years. You can change the default ranges of these periods using the properties described in "Configuring Reports" on page 3-49.

The key metrics show the count of each rating for the current week and the percentage change over the previous time period. Status arrow indicators let you easily see whether a rating trend is up or down. A graph shows the trend of the four possible ratings over time.

The top ten conferences with poor, good, excellent, and no response ratings are listed, with their host comments. These are grouped into four tables by rating level. Only conferences with host comments are listed in the tables, so you can easily review and respond to poor comments, and compare the difference between users who rate the system highly and those who do not.

Oracle Real-Time Collaboration Quality of Service Reports

The QoS Report page under the **Reports** tab lets you view reports that summarize the quality of service provided by Oracle Real-Time Collaboration components to your users, and that list any incidents experienced by users while using Oracle Real-Time Collaboration tools. Users with either business monitor or business administration privileges may view the tab and its reports. Use these reports to evaluate the performance of your system, confirm issues raised by users in the Feedback report, and check the results of any performance tuning efforts.

The **Web Conferencing** report lets you determine how well the Real-Time Collaboration system has performed as users start and run conferences, download and run clients, and connect to conference processes. The report shows the number of conferences whose attendees had problems downloading the console client or connecting to the conference, had unacceptable join times, or who were disconnected during the conference.

You can check further details about the types of connections made (directly through the multiplexer or through mod_imeeting using HTTPS or an HTTPS tunnel), the general reasons for client download failure (for example, the attendee was using an unsupported platform), and the actual connection times in seconds or the speed of the network connection in milliseconds. Note that if you want more detail about join or download failures, you can check the Status report described later in this section.

As administrator, you can control the measure used for what is an "acceptable" join time or network connection using the AcceptableJoinLatency and AcceptableNetworkLatency properties. See "Configuring Quality of Service Measurements" on page 3-51 for details.

The **Incidents** report displays the results of checks run as users attempt to enter Web conferences. You can see the number of successfully installed console clients and the number of failures, and the results of compatibility checks run on a user's system as the user attempts to connect, including details about unsupported platforms, device drivers, and so forth. Use this report to follow up on the causes for failures as users attempt to join a conference.

Oracle Real-Time Collaboration Security Report

The Security page under the **Reports** tab lets you view information about the secure and key-protected conferences held on this system versus those that were not secure. User this report to determine how secure your company's conferences have been.

The report shows the count of various events for the current week and the percentage change over the previous week. Status arrow indicators let you easily see whether a rating trend is up or down. Graphs shows the trend of the events over the past months.

The following metrics are captured in the report.

- **Key Security Metrics:** Summarizes the number of conferences and recordings that have used various methods to control access. *Published* conferences refers to conference archives that were published using the "List conference on public Web page" option in the Archive page for the conference. If this option was checked, the archived conference is included in the "Published" statistics for the Security report.

- **Conference Accessibility Statistics, Key-Protected Conference Statistics,** and **SSL-Encrypted Conference Statistics:** Three sections of the report compare conferences by some method used to control access: the type of user invited to

participate, whether a conference required a conference key, or whether a conference used SSL encryption. Then each section compares other attributes of each conference, such as whether it was published or what other access control methods were applied. Use this section to determine how many security measures are being applied to conferences at your site.

- **Security Statistics for Recorded Conferences:** This section shows how many conference recordings are published, downloadable, or require a conference key in order to view them.

Oracle Real-Time Collaboration System Status Reports

Two reports under the **System** tab let you monitor the activity of instances and components running within the Real-Time Collaboration system, and manage information about your Oracle Real-Time Collaboration hosts. Only users with the business administrator role can access the reports on this page.

The **Status** report lets you view the current status of components and instances in this system. Use it to check on general system status, check which component processes are running on which instances, and view the results of recent system availability tests. The report includes the following:

- The current activity of instances and their components, including active conferences, chat sessions, and Web Client sessions.

- The results of service availability reports run automatically by the system, using the `runTests` command. For more information about how to respond to the test results, see "Monitoring Service Availability" on page 5-2.

- Information about each running process.

- Properties set on the system and instances, components, and sites within it.

You can expand or contract hierarchical lists of information, and see additional details about current conference sessions, Web client sessions, test results, and sites.

The **Configuration** report lets you record and view information about each host for this Oracle Real-Time Collaboration system. Use it to create new host names or change information about a host.

Oracle Real-Time Collaboration System Logs

The **Logs** page under the **System** tab lets you view all logs recorded by various Oracle Real-Time Collaboration processes. Use these files to help you analyze the performance of various processes, and to troubleshoot specific issues by component, process, and date of the incident.

Log files are stored in the $ORACLE_HOME/imeeting/logs directory, and are recorded and named by date. Some logs are plain ASCII files, and others are XML files that display data in tables.

The Logs page lets you view the logs listed in Table 6–1.

Table 6–1   Logs Viewable in the System Logs Report

Section in Report	Content
Application Server logs	Log files from the Oracle Real-Time Collaboration Web Client, the OC4J_imeeting application. Includes XML log files for each user's sessions with the application, for sessions with a particular site, and log files not associated with any session.

Table 6–1   (Cont.) Logs Viewable in the System Logs Report

Section in Report	Content
IM Router logs	Log files for the Oracle Presence Server, including an XML log file, and ASCII log files for errors (imtr*.log), statistics (stats*.log), chat conferences (tc*.log), and JDS Directory Service calls (ds*.log).
Multiplexer logs	Multiplexer log files (ASCII).
Redirector logs	Redirector log files (ASCII).
RTCCTL logs	XML logs of the results of rtcctl commands.
RTC Process Manager logs	Process Manager log files, including directories containing log files for each of the child processes managed by the Process Manager: confsvr (Oracle Web Conferencing Server), connmgr (Connection Manager), imrtr (Oracle Presence Server), mx (Multiplexer), rdtr (Redirector), and voiceproxy (Voice Proxy Server).
Web Conferencing Server logs	XML log files for Oracle Real-Time Collaboration server process events that do not belong to any meeting. Logs are grouped by date (MM.DD.YYYY).
Web Conferencing Session logs	XML log files for conference sessions, grouped by date (MM.DD.YYYY).
Voice Proxy logs	Voice Proxy Server log files (ASCII).

Some additional logs are available in the /logs directory. You can access all logs directly from your file system. See Appendix C, "Oracle Real-Time Collaboration Log Files" for details about the file names and directory structure of all logs.

Controlling Log File Details

You can control how often log files are updated, the level of detail stored in the logs, and where the logs are stored, using the following Oracle Real-Time Collaboration properties:

- **LogFlushInterval** controls how often logs are updated. The default is every 10 seconds.

- **LogLevel** controls the amount of detail stored in the logs.

- **LogPath** controls where log files are stored.

See "Configuring System Logs" on page 3-54 for details about setting these properties.

Removing Old Log Files

If you wish to remove old log files, you can copy the log files to a backup or archive device. As stated previously, all log files are stored in the $ORACLE_HOME/imeeting/logs directory.

Many log files are stored by date, with the date appearing at the end of the file name in MM.DD.YYYY format. You can review these dates and choose to delete files older than a certain date, or create a script to copy files to an archive location by their datestamp or the date in their file names.

Publishing an Oracle Real-Time Collaboration Availability Report

You may use third-party monitoring software to monitor the status and availability of Oracle Real-Time Collaboration services. You can use the test servlets or the runTest command to gather status information as described in "Oracle Real-Time

Collaboration Monitoring Interfaces" on page 5-8. You can then use your monitoring software to produce availability or "uptime" reports showing service availability and history. If you post a home page for the report(s) on a web server, you can use the AvlURL property to display that page from the **Availability** sub-tab under **Reports**.

See "Configuring the Availability Report" on page 3-51 for details about setting this property

E-mailing Reports to Specified Recipients

You can e-mail reports to a list of recipients using the `imtreport` script, as follows:

1. Locate the `imtreport` script at `$ORACLE_HOME/imeeting/bin/imtreport`.

2. Using a text editor, open the `imtreport` script and edit it as follows:

   - *FROM_ADDRESS*: Enter the e-mail address of the sender of the reports.

   - *RECIPIENTS*: Enter the e-mail addresses of the recipients, separating each one with a comma. Do not use spaces between each e-mail address.

   - *REPORT_TYPE*: Enter the default report type. The initial default is set to USAGE. This is the report that will be sent if no report type is specified when you run the script. Valid values are QOS, USAGE, FEEDBACK, SECURITY, or ALL. ALL sends four separate e-mail messages to each recipient, one for each of the four reports.

3. To send the report(s), run the script from `$ORACLE_HOME/imeeting/bin/imtreport` as follows:

   ```
   imtreport -type report
   ```

   where *report* is either QOS, USAGE, FEEDBACK, SECURITY, or ALL. ALL sends four separate e-mail messages to each recipient, one for each of the four reports. If `-type report` is not specified, the default report is sent. The initial default is USAGE.

7

Managing Oracle Real-Time Collaboration Archives

The details of every Oracle Web Conferencing session and each one-to-one instant message sent with Oracle Messenger can be archived and stored in the Oracle Real-Time Collaboration repository. This chapter contains the following sections:

- Oracle Web Conferencing Archives
- Oracle Messenger Archives
- Creating a Privacy Statement for Users
- Purging Deleted Oracle Real-Time Collaboration Conferences

Oracle Web Conferencing Archives

All Web conferences are archived and stored in the Oracle Real-Time Collaboration repository. The following sections describe what information is stored, what information can be made viewable by other users, and how users and administrators can modify archives.

Contents of Conference Archives

All conference archives are stored in the Oracle Real-Time Collaboration repository. Each conference host can review the data shown in Table 7–1.

Table 7–1   Conference Details Stored in Oracle Real-Time Collaboration Archives

Information	Shown by Default?	Can Be Edited?
Conference title	Yes	Yes
Conference key	Never published	Yes
Host's Name	Yes	No
Conference ID	Yes	No
Conference start date and time	Yes	No
Conference duration	Yes	No
Voice start time	Yes	No
Voice duration	Yes	No
Number of attendees	Yes	No

Table 7–1   (Cont.) Conference Details Stored in Oracle Real-Time Collaboration Archives

Information	Shown by Default?	Can Be Edited?
Number of anonymous attendees	Yes	No
Number of listening attendees (applicable only if voice streaming was used)	Yes	No
Recordings[1]	No	No
Details about each attendee:	No	No
Name		
E-mail address		
Company		
Postal address		
Telephone number		
Time enrolled for conference		
Time entered conference		
Time left conference		
Time entered voice stream		
Time left voice stream		
Any additional data gathered using Enrollment or Additional Information fields[2]		
Documents uploaded to Materials and made available before the conference	No	No
Documents uploaded to Materials and made available after the conference	No	No
URLs visited during the conference	No	No
Chat transcripts	No	No
Poll results	No	No

[1] Administrators can prevent any users (except meeting hosts) from downloading or playing back conference recordings. See "Controlling Archives" on page 3-52 for details.

[2] Administrators can add fields to conference login and enrollment dialogs, to gather more information about attendees. See "Configuring the Enrollment and Join Conference Dialogs" on page 3-31 for details.

All items with "Yes" for "Shown by Default" appear in the published conference record. A host can see all of the information, even information that is not shown by default. Hosts can also decide whether to keep certain parts of the archive hidden from other users, as described in "Controlling What Archive Detail Can Be Viewed"

Hosts can use the **Archives** pages to edit the title or the conference key for a completed conference. Administrators should keep this in mind if they have created any integrated services that rely on conferences maintaining the ID created when the conference was created.

Controlling What Archive Detail Can Be Viewed

By default, conferences are published in an archive listing that is visible only to the conference host, and to each conference attendee who is a **registered user**. The basic information about a conference is visible to the host and attendees (the items listed as

shown by default in Table 7–1). Hosts and attendees view the listing from **My Archived Conferences** under the **Archive** tab.

If a conference required a conference key, users must enter the key in order to view the archive.

Hosts can choose to publish a conference as they exit the conference (provided the PublishOption property is set, as described in "Controlling Archives" on page 3-52). Hosts can also update the conference archive by clicking the **Update** icon for that conference from their **My Archived Conferences** page, then choosing whether the conference is published, and which information to publish.

A host can additionally choose to publish any of the items that are not shown by default (items with a "No" under "Shown by Default" in Table 7–1). Only the conference host can choose to publish information about a conference.

Controlling Who May View Conference Archives

By default, only attendees of a conference can view any part of the conference archive that the host chooses to make visible, as described in "Controlling What Archive Detail Can Be Viewed". However, hosts may choose to create a **public conference** archive so that non-attendees may view the archive, by choosing to list the archive on a public Web page.

By default, the security restrictions of the actual conference (as shown in Table 7–2) are applied to the archive. For example, if only registered, invited users could attend the conference, only those users can view the archive.

Table 7–2   Audience and Visibility Settings to Control Conference Access

Audience Setting	Visibility Setting	Accessibility
All Users	List conference on public Web page	Both nonregistered and registered users may attend. Any user can see the conference on the Scheduled Conferences page, without logging in. Any user can view the conference in the Archived Public Conferences listing, if the host publishes the conference.
All Users	Off (not listed)	Both nonregistered and registered users may attend, if they are given the conference key. Registered users who were invited can see the conference under My Conferences. The conference does not appear in the Scheduled Conferences or Archived Public Conferences listings. Registered users who attended can view the archive under My Attended Conferences.
Registered Users	List conference on public Web page	Only registered users may attend. Any registered user can see the conference in the Upcoming Conferences table, or view the conference in the Archived Public Conferences listing, if the host publishes the conference. Nonregistered users cannot view the conference listing or archive.

Table 7–2 (Cont.) Audience and Visibility Settings to Control Conference Access

Audience Setting	Visibility Setting	Accessibility
Registered Users	Off (not listed)	Only registered users may attend. Registered users who were invited can see the conference under My Conferences. The conference does not appear in the Scheduled Conferences or Archived Public Conferences listings. Registered users who attended can view the archive under My Attended Conferences.
Registered Users by Invitation Only	Off (not listed); this is the only possible setting for this audience	Only registered users who have received an invitation from the host can attend, and only registered users who attended can view the archive under My Attended Conferences. The conference does not appear in the Scheduled Conferences or Archived Public Conferences listings.

In addition, a host can do either of the following to further restrict access:

- Add or change the conference key used to access a completed conference, requiring users to enter that key before viewing the archive.

- Require attendees to enroll in order to view the conference archive. When they enroll, attendees must enter their name, address, company, telephone, e-mail address, and any additional information specified by the EnrollmentInfoText property. See "Configuring the Enrollment and Join Conference Dialogs" on page 3-31 for details.

An administrator can further control access to conference recordings by setting the ConferenceRecordingPlaybackEnabled and ConferenceRecordingDownloadEnabled properties to false. If false, then users authorized to view the archive cannot download or play back the conference recording. Only the meeting host may play back the conference recording, but the meeting host will not be able to download it. See "Controlling Archives" on page 3-52 for details about these properties.

Storage for Recordings and Materials

The Oracle Real-Time Collaboration repository includes conference recordings made by each user, and the files that users have uploaded using the **Materials** tab on the Web client page. The materials files may include Microsoft Office files, images, text files, HTML files, and other documents that users plan to share during a conference.

Each user can view the amount of space used in the repository for his own recording and materials data, by clicking **Preferences** on the Web client pages and selecting **Space Usage**. If space usage is high, users can delete recordings from the archives, and delete materials from their materials repositories.

Oracle Messenger Archives

Message archives can be stored in the Oracle Real-Time Collaboration repository, although they are not stored by default. The following sections describe how to save Oracle Messenger archives, and the archive content.

Saving Oracle Messenger Archives

Archives can be saved both on the server side, and on each client's side. Message archives can be enabled in either or both of the following ways:

- **Server side:** By default, server-side message archiving is disabled. Administrators can set an Oracle Real-Time Collaboration property, IMArchiveEnabled, to save message archives to the Oracle Real-Time Collaboration repository. See "Controlling Archives" on page 3-52 for details about setting this property.

  Message archives are only available to those users who participated in the messaging session. That is, if an administrator chooses to save archives to the repository, each Oracle Real-Time Collaboration user will be able to view only the messages that they participated in, using the **Archive** tab in the Oracle Real-Time Collaboration Web Client.

- **Client side:** By default, message archiving is enabled in Oracle Messenger, and users can set the size of the locally-stored archive. Users can choose to disable saving their messages locally, by choosing **Tools** and then **Options** from the Oracle Messenger client window, and then removing the checkbox from **Save Messages** under **Instant Messages**.

  To view a message archive, users can right-click a contact name and choose **View Message Archive**.

Disabling Oracle Messenger Archives

By default, message archiving is enabled in Oracle Messenger, and message archives are stored locally on the user's machine. To disable Oracle Messenger archiving by default when Oracle Messenger is installed, do the following:

1. Open the $ORACLE_HOME/j2ee/OC4J_ imeeting/applications/imeeting/imtapp/im/messenger/feature.jsp file in a text editor.

2. Edit the following line:

   ```
   <archive_messages enabled="true" override="false">4</archive_messages>
   ```

   to replace `<archive_messages enabled="true"` with `<archive_messages enabled="false"`, as follows:

   ```
   <archive_messages enabled="false" override="false">4</archive_messages>
   ```

3. In addition, to force the user's message archiving setting to be disabled when they upgrade to a newer version of Oracle Messenger, change `override="false"` to `override="true"`. If message archiving is forced off when the user upgrades, they must explicitly enable message archiving in their Oracle Messenger client after they upgrade.

Contents of Oracle Messenger Archives

Message archives contain the text of each message session exchanged with another user, stored by user and sorted by message date. If message archives are saved, either on the client side or the server side, the following information is stored:

- Name of the contact
- Date the message session was exchanged
- Entire text of the messages in the session

Users can view their messages under **Message Archive** on the **Archive** tab, and sort the messages by contact name or message date. Users can also right-click a contact name in the Oracle Messenger window to view all messages from that contact, sorted by date.

Only participants in a message can view the message archive. Administrators do not have any special privileges to view messages between other users.

> **Note:** Text chat conferences (a chat window with three or more users) are not archived, and participants cannot view archives of those chat sessions.

Deleting Oracle Messenger Archives

If Oracle Messenger message archives are stored on the server (accomplished by setting the IMArchiveEnabled property to true), the message archives are stored in the `RTC_IM.RTC_IM_MESSAGES_ARCHIVE` table. This table is used to display the message history from the Web Client pages. If you do not want to preserve the message history, you can truncate this table.

Creating a Privacy Statement for Users

You may want to publish a statement explaining what conference and instant messaging data is being stored, to comply with requirements about informing users that written or verbal communications are being recorded and stored. You can create a statement on a web page and then link the Oracle Real-Time Collaboration Web Client pages to it, so that the statement is available to all users.

You use the PrivacyLink and ShowPrivacyLink properties to add the link to your privacy statement from the Oracle Real-Time Collaboration Web pages. See "Customizing the Privacy Statement Link" on page 3-32 for details.

Purging Deleted Oracle Real-Time Collaboration Conferences

Conference hosts can delete archives of conferences from the Oracle Real-Time Collaboration Web Client pages. However, although those conferences are no longer available through client pages, related data (chat transcripts, polls, references to presented documents and presented URLs) remains in the information storage database. A PL/SQL package, rtc_purge_meetings_pkg.purge, lets administrators purge this detail for deleted conference records.

The command is:

```
rtc_purge_meetings_pkg.purge(l_info_only TRUE|FALSE, l_commit_size any number)
```

The value for `l_info_only` is either `TRUE` or `FALSE`. If `TRUE`, then the script writes the meeting IDs for meetings with `active_flag = 'N'` into the `RTC_LOGS` table, but does not purge the meetings IDs from the database tables. If `FALSE`, the script permanently removes the deleted meeting IDs from the History table.

The value for `l_commit_size` is any numeric value. The default is 1,000.

For example, to use the API to write the meeting IDs for deleted meetings into the `RTC_LOGS` table, do the following:

1. Log in to the computer containing the Oracle Real-Time Collaboration repository, using the `RTC_APP` user name and password.

2. At the command prompt, run the following API command:

```
exec rtc_purge_meetings_pkg.purge(l_info_only TRUE,l_commit_size 1000);
```

3. Execute the Commit command.

4. Check the `RTC_LOGS` table to see whether the meeting IDs were added.

> **Note:** Setting the `active_flag = 'N'` for a conference in the `RTC.RTC_MEETINGS` table deletes the conference just as if the host deleted it using the Web Client pages.

8

Oracle Real-Time Collaboration Sites

Oracle Real-Time Collaboration lets you easily configure a single deployment to meet the needs of various lines of business. You do so by creating individual sites for each line of business (sales, support, training, and so on) and customizing system, Web client, conference, and messaging properties for those sites. You can also integrate Oracle Real-Time Collaboration functions into your applications; to do so, you create a site with which the integrating service can interact.

Sites are created by the business administrator. (See "Setting User Roles" on page 4-15 for details about assigning a user the business administrator role.) For every site created, the integrating application or line of business uses a unique authentication token along with the site ID to communicate with the Oracle Real-Time Collaboration system.

Creating a site provides the following benefits:

- Customized system, Web Client, conference, and messaging properties

- Support for custom integrated flows that can bypass the Web Conferencing Client pages or the Oracle Messenger contact window to start Web conferences, chat sessions, or chat conferences

- Support for custom Web Conferencing console behavior based on the properties set for the site

- Site-level reports that give the same depth and breakdown of data as the global Oracle Real-Time Collaboration site reports

- Custom user interfaces, including a separate application login page listing public conferences only for the specific site

- Custom branding to uniquely identify the integrating line of business

Even if you do not create additional sites, each Oracle Real-Time Collaboration system has one default site called "RTC." This global site is created at installation and cannot be deleted.

This chapter contains the following sections:

- Integrating Applications with a Site

- Creating a Site

- Accessing a Site

- Assigning Site Administrators

- Customizing Site Properties

- Site-Level Reports

Integrating Applications with a Site

In an enterprise, a single deployment of the Oracle Real-Time Collaboration system can be used by various integrated applications supporting lines of business such as a sales department, a support department, and so on. For example, you can integrate a service that starts a Web conference from your company's sales Web site. Or you can integrate a service that displays users' presence information from Oracle Messenger in your company Web pages.

You use sites to provide customized views of the Oracle Real-Time Collaboration deployment for each of the integrating applications. Each site is assigned a unique site ID and authentication session token as you create it. The integrating application uses the site ID and token to pass information to and from the site.

An application can integrate with Oracle Real-Time Collaboration in either of the following ways:

- It can programmatically invoke Web Conferencing or Oracle Messenger functions using Oracle Real-Time Collaboration Integration Service calls.

- If the application has a browser-based interface, it can invoke the Oracle Real-Time Collaboration Web Client pages directly.

In either case, creating a site allows the Oracle Real-Time Collaboration system to provide a customized service for each integrating application.

For complete information about using integration services, see the *Oracle Real-Time Collaboration Application Developer's Guide*.

Configuring Integration Services Using Properties

Table 8–1 lists the properties that let you enable or disable different features of Oracle Real-Time Collaboration Integrated Services. For security reasons, you may want to prevent access to some of these services. For complete details about the syntax of each property, see "Enabling Integration Services" on page 3-21.

Table 8–1   Properties that Control Integration Services

Property	Default Behavior
AuthSessionEnabled	Allows integrating applications to get an authentication session token and enables all programmatic access for a site.
ConfigurationServiceEnabled	Allows programmatic access to Configuration Services, which let clients query and update configuration information from an Oracle Real-Time Collaboration deployment.
EmbeddablePresenceEnabled	Allows users to access the **Embeddable Presence** option from their **Preferences** pages. This option lets them embed presence links in Web pages or e-mail.
EmbeddablePresenceGuestChatEnabled	Prevents **nonregistered user**s from starting chat sessions from embedded presence links.
PostConferenceServiceEnabled	Allows programmatic access to Post-Conference Services to get or set publish options for a finished conference, or to get the URL to play back recorded conferences.
PreConferenceServiceEnabled	Allows programmatic access to Conference Management Services to schedule, update, delete, or list scheduled conferences.

Table 8–1 (Cont.) Properties that Control Integration Services

Property	Default Behavior
PresenceServiceEnabled	Prevents programmatic access to Presence Services that display individual or group presence status, or a presence URL in a Web site.
ReportingServiceEnabled	Allows programmatic access to Reporting Services to list conference attendees, details of a finished conference, or list finished conferences by date or by conference ID.
SiteGuestChatEnabled	Prevents **nonregistered user**s from starting or participating in chat sessions through any programmatic access.
WebServiceEnabled	All integration services are available, including Oracle Messenger integrations with Oracle Web Conferencing, the Oracle Real-Time Collaboration Add-In for Microsoft Office, and integrations with Oracle Calendar, Oracle Collaborative Portlet, and Oracle Workspaces.

Enabling or Disabling Integration Services Using the Sites Tab

You can enable or disable access to some site information from integrated services by using the **Privileges** tab under the **Sites** tab.

1. Select **Sites**, then click the **Details** icon for the site you want to edit.

2. Select **Privileges**.

3. Set one or more of the options on the page:

   - **Allow guest users (nonregistered users) to chat:** If this item is turned on, integrated services can support chat with a **guest chat user**. If it is off, integrated services cannot provide chat support for guest users, such as the "answer group" scenario described in "Managing Groups for Group Presence" on page 4-18.

     This setting corresponds to the SiteGuestChatEnabled property.

   - **Allow access to presence information for a user or group:** If this item is turned on, integrated services can access and display presence status for users or groups in the Oracle Real-Time Collaboration system. If it is off, will not work.

     This setting corresponds to the PresenceServiceEnabled property. Note that this setting has no effect on whether users can embed presence information in e-mail messages or Web sites, which is controlled by the EmbeddablePresenceEnabled property.

   - **Allow access to conference management features:** If this item is turned on, integrated services can schedule, start, update, or publish conferences. If it is off, you cannot use integrated services to create or update conferences in any way.

     This setting corresponds to the PreConferenceServiceEnabled property.

4. Click **Apply** to save your changes.

Creating a Site

The Oracle Real-Time Collaboration administrator creates a site by doing the following:

1. Log in with a businessadmin account (see "Setting User Roles" on page 4-15 for details about creating this account).

2. Click the **Sites** tab.

3. Click the **Create Site** button.

4. Create a site, assigning it a Site Name (required) and optional display description.

5. Click **Apply**.

The Oracle Real-Time Collaboration system then registers the site and generates a site ID and an authentication token for the site. An application that wants to integrate with the Oracle Real-Time Collaboration system can use the new site ID to make the appropriate calls.

Accessing a Site

For Oracle Real-Time Collaboration Integration Service calls, the site ID is passed as one of the HTTP header fields in the HTTP request to invoke the service. Any Web page that provides a link to a Oracle Real-Time Collaboration page, or any user logging in to Oracle Real-Time Collaboration, can provide the site ID as a URL parameter. For example, the following URL can be used to open site 123456.

```
http://hostname:port-number/imtapp/app/prelogin.uix?siteID=123456
```

In this example, *hostname* is the name of the Application tier on which Oracle Real-Time Collaboration is installed, and *port-number* is the port on which the OC4J_ imeeting process is running. Entering this URL into a browser returns an Oracle Real-Time Collaboration home page for site 123456 with any customizations created as described in "Customizing Site Properties" on page 8-5. Any conferences started from the Web Client pages will have the attributes defined for conferences for that site.

Assigning Site Administrators

You can assign users to be site administrators, just as you create business monitor or business administrator roles for your entire Oracle Real-Time Collaboration system. You assign a user the business monitor or business administrator role for the site using the modifyRole command as follows:

```
$ORACLE_HOME/bin/imeeting/rtcctl
rtcctl> modifyRole -siteId siteID -username username -rolename
businessadmin|businessmon
```

When a site administrator logs in to the site using the site ID as described in "Accessing a Site", he will see the Oracle Real-Time Collaboration Web Client page tabs appropriate for his role:

- Regular site users see the **Home**, **Schedule**, **Materials**, and **Archive** tabs.

- Business monitor site users see the regular tabs and the **Monitor** and **Reports** tabs.

- Business administrator site users see the regular and business monitor tabs, and the **Sites** and **System** tabs.

For more information about the `modifyRole` command, see "Setting User Roles" on page 4-1.

> **Note:** Site-level administrators can perform system administration tasks within the site. However, only a system-level business administrator can create or delete a site.

Customizing Site Properties

After you have created a site, you can set up site-specific properties to control the interaction of users (or of any integrating application) with Oracle Real-Time Collaboration. The definitions of properties given in Chapter 3 note which properties can be set at the site level.

There are four broad classes of properties that affect how users interact with the site:

- **System and Site Properties:** Control the behavior of components and instances for an entire system or site. These properties are documented throughout Chapter 3.

- **Web Client Properties:** Change the look and feel of the Oracle Real-Time Collaboration Web Client pages. Examples of such properties are properties to change the corporate image or text that appears at the top of each Web client page. See "Customizing the Oracle Real-Time Collaboration Home Pages" on page 3-28 for details.

- **Conference Properties:** Change the attributes of any conference, whether it is started from the Web Client pages or from the integration service calls. Examples of such properties include the starting collaboration mode of conferences held at this site or the availability of chat during conferences. See "Configuring Web Conferences" on page 3-36 for details.

- **Console Runtime Properties:** Individual users can override some conference properties by setting defaults prior to a conference using the **Schedule** tab, by setting their preferred defaults using the **Preferences** link on the Oracle Real-Time Collaboration home pages, or by using the **Preferences** button in the Web conference console during a conference.

Figure 8–1 shows how the various property values in Oracle Real-Time Collaboration are inherited and set. When a site is created, it inherits the default values of all the properties from the system settings. The administrator can then set various conference-level and Web client-level properties for this site, to override the default values. A meeting host or participant can change console properties by setting preferences before the conference, or by updating their preferences during a conference.

Figure 8–1   Site Property Inheritance
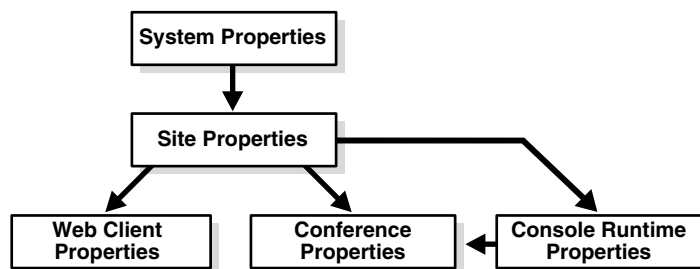
Using the rtcctl utility, administrators can control whether some of the console run-time properties can be overridden:

- If an administrator for an Oracle Real-Time Collaboration system uses the `force -true` option when setting a property, then those properties *cannot* be changed, either by conference hosts, or by site administrators using the rtcctl utility.

- If the administrator does not use the `force -true` option, then conference features can be changed when scheduling a conference using the **Schedule** tab, or when setting a user sets defaults using the **Preferences** link, or from the **Preferences** button in the Web conference console.

See "Setting System, Instance, Component, and Site Values" on page 4-3 for more information about the hierarchical nature of properties and how the `force -true` option works.

Figure 8–2 shows a custom login page for the Big Company site. The title at the top of the page shows the company name, and the opening descriptive text and heading have been customized for the company's Eastern Sales Division. The login links at the top of the page display icons. The properties used to customize this page are:

- ShowGblButtonImage="true"

- WelcomeHeaderText="Oracle Real-Time Collaboration for Big Company, Inc. Eastern Sales Division"

- WelcomeHeaderDescText="Welcome to the Oracle Real-Time Collaboration Site for the Eastern Sales Division of Big Company, Inc. Log in to this site to hold sales conferences and download the Oracle Messenger."

The "Big Company, Inc." name appended to the top of the page is the Site Display Name assigned to this site when it was created using the **Sites** tab.

Figure 8–2   Oracle Real-Time Collaboration Login Page Customized for a Site

There are two ways to modify properties for a site:

- Use the `rtcctl` command with the `-siteId` option. See Chapter 4 for details.

- Use the **Sites** tab of the Web Client pages to set Web conference console defaults. See "Using the Sites Tab to Set Conference Defaults for a Site" for details.

Using the Sites Tab to Set Conference Defaults for a Site

You can set defaults for all Web conferences on a site by using the **Sites** tab. On the Sites tab, find the site whose defaults you want to edit and click **Details**, then **Conference Properties** to view the current default settings for conferences held at this site.

Any changes you make to this page take effect immediately. Any conferences started after you click **Apply** will use the new defaults.

Table 8–2 lists the prompts shown on the **Conference Properties** page under the **Sites** tab, and their corresponding Oracle Real-Time Collaboration properties.

Table 8–2   Conference Run-Time Properties Under Sites Tab

Item on Conference Properties Page	Property Name(s)
Startup Mode	ConferenceStartupMode
Toolbar: Expand Secondary Row	ConsoleExpandSecondRow
Toolbar: Expand help text	ConsoleExpandHelpText
Toolbar: Autohide	ConsoleAutoHide
Privileges: Presenters use annotation tools	ConsolePresenterUseAnnotationTool
Privileges: Presenters send polls	ConsolePresenterSendPolls
Privileges: Presenters switch modes	ConsolePresenterSwitchModes
Chat Type: Chat with Host	HostChat
Chat Type: Public Chat	PublicChat
Chat Type: Group Chat	GroupChat
Secure Communications	SSLRequiredForMeetings

> **Note:** If users have their own preferences set for some of these items, their preferences will take precedent over any that you set for the site using the Conference Properties page. To force defaults on all site users, use the setProperty command with the -force true option as described in Chapter 3.

Locating the Authentication Token for a Site

Each Oracle Real-Time Collaboration site has a unique authentication token associated with it. Sites such as Oracle Calendar must use the Oracle Web Conferencing authentication token for the siteauthkey parameter in the [CONFERENCING] section of the Oracle Calendar unison.ini configuration file. The siteauthkey parameter specifies the password for the Oracle Web Conferencing account used by the Calendar Server to access the Oracle Web Conferencing Server. See Chapter 3, "Calendar Server Parameters" of *Oracle Calendar Reference Manual* for more details.

In some cases, it may be necessary to manually retrieve the siteauthkey parameter. To locate the authentication token for a site, do the following:

1. Log in to the Oracle Real-Time Collaboration Web Client with a businessadmin account (see "Setting User Roles" on page 4-15 for details about creating this account).

2. Click the **Sites** tab.

3. Click **Details** for a site.

   The authentication token for the site is displayed.

For Oracle Calendar, the Web Conferencing site authentication token must first be manually encrypted using the Oracle Calendar uniencrypt utility. The resulting encrypted string can then be entered in the [CONFERENCING] section of the Oracle Calendar unison.ini configuration file.

Site-Level Reports

Reports available from the **Reports** and **System** tabs from a site page cover only the conferences and processes associated with that site.

The following Usage report data is not available in site reports:

- Site metrics in the Web Conferencing section of the Key Usage Metrics report.

- Presence and Chat statistics in the Integration Services section of the Key Usage Metrics report.

- Top user and top site data in the Web Conferencing report.

- Presence Queries metrics in the Integration Services report.

- All data in the Presence and Chat report.

If you are logged in as a site administrator or are viewing Usage reports for a site, the data listed here will not appear.

A

Troubleshooting Oracle Real-Time Collaboration

This appendix describes how to report client crashes to Oracle, and how to answer common troubleshooting questions caused by administrative issues. It contains the following sections:

- Reporting System Failures to Oracle
- Troubleshooting Oracle Real-Time Collaboration Issues
- Troubleshooting Oracle Web Conferencing Issues
- Troubleshooting Oracle Messenger Issues

> **Note:** This appendix covers only those issues that are caused by administrative problems, or that must be resolved by a system administrator. For answers to general usage questions and a list of issues that users can resolve themselves, please refer users to the *Oracle Real-Time Collaboration Frequently Asked Questions* on the Oracle Technology Network Web site, at
> `http://www.oracle.com/technology/products/cs/user_info/ortc/index.html`

In addition to the issues discussed here, Oracle Real-Time Collaboration saves log files recording system events and behavior. A user with business administrator privileges can view these log files from the Logs page under the **System** tab. See Appendix C for descriptions of the log files.

Reporting System Failures to Oracle

If one of your users has experienced any difficulties with system failures during Oracle Real-Time Collaboration, have them set their system to record debugging information, as follows:

- Windows NT 4.0
  1. Select **System**, then **Control Panel.**
  2. Double-click **System.**
  3. Select the **Startup/Shutdown** tab.
  4. Set "Write debugging information" ON.
- Windows 2000 / XP

1. Select **System**, then **Control Panel.**

2. Click the **Advanced** tab.

3. Click **Startup and Recovery.**

4. Set "Automatically reboot" OFF.

5. Under "Write Debugging Information" select "Kernel memory dump."

If the computer fails again, information about the failure will be written to the disk. After rebooting the system, find the MEMORY.DMP file in the C:\WINNT or C:\WINDOWS directory, and e-mail this file to Oracle Support Services with a description of events leading up to the failure.

Troubleshooting Oracle Real-Time Collaboration Issues

The following sections outline issues and questions system administrators may have regarding general Oracle Real-Time Collaboration system issues.

- Issues with User IDs and While Logging In

- Issues With Client Connections

- Issues with Oracle Real-Time Collaboration Web Pages

Issues with User IDs and While Logging In

The following sections answer questions about logging in to Oracle Real-Time Collaboration.

- User Cannot Log In

- Correct Login for Proxy Authentication

User Cannot Log In

If a user attempts to log in to Oracle Real-Time Collaboration and receives a message, "Invalid user name or password," the user may not be provisioned in the Oracle Internet Directory. See "Managing Oracle Collaboration Suite Users and Groups" in *Oracle Collaboration Suite Administrator's Guide* for details.

Correct Login for Proxy Authentication

If users access your Oracle Real-Time Collaboration system through your company proxy server, they should log in using the login name and password they use for Internet and network access.

Issues With Client Connections

This section describes how to handle issues with connections from Web conferencing and instant messaging clients. It covers the following topics:

- Cannot Support the Number of Clients Attempting to Connect

- Connectivity Issues Appear in Diagnostic Reports

- General Diagnostic Test Issues

Cannot Support the Number of Clients Attempting to Connect

The Oracle Real-Time Collaboration Multiplexer and Client Connection Manager processes help handle connections from clients to the Oracle Web Conferencing Server

and Oracle Presence Server. You can use the IMMaxConnections property to increase the number of simultaneous connections allowed from clients to the connection manager on this instance, as described in "Increasing Component Processes and Connections" on page 3-13.

However, the number of connections these processes can handle on a UNIX, Linux, or Solaris system is also controlled by the number of open file descriptors allowed on the system. You can set this limit using the `ulimit` command (sh, ksh, bash), the `limit` command (csh, tcsh), or by changing entries in a configuration file for your operating system, such as /etc/security/limits.conf or /etc/sysctl.conf.

If the number of file descriptors is limited to 1024, a single multiplexer or connection manager process can handle about 1,000 users. If users are consistently unable to connect to multiplexer or client connection manager processes, you may need to increase the number of open file descriptors allowed. The best rule of thumb is to set the limit to at least the same amount that the IMMaxConnections property is set to.

1. To reset the limit, you must also stop and restart Oracle Real-Time Collaboration processes. Inform your users that you will be stopping Web conferencing and messaging processes before following the next steps.

2. Stop the Oracle Real-Time Collaboration OC4J_imeeting and core component processes:

```
$ORACLE_HOME/opmn/bin/opmnctl stopproc ias-component=OC4J process-type=OC4J_
imeeting
$ORACLE_HOME/imeeting/bin/rtcctl stop
```

3. Edit the appropriate configuration file for your operating system (such as /etc/security/limits.conf), or use `ulimit` or `limit` to set the number of open files or file descriptors a process may have. The method you choose depends on your operating system.

   For example, to set the limit for members of the group called "users" in your limits.conf file to 4000 open file descriptors, you could edit it as follows:

```
# Allow anyone in the 'users' group to open 4000 files.
@users          hard    nofile  4000
```

   Or you could use `ulimit` on a standard Bourne shell as follows:

```
ulimit -n 4000
```

   See your operating system documentation for more information about the best way to set the number of open file descriptors allowed.

4. Restart the Oracle Real-Time Collaboration OC4J_imeeting and core component processes:

```
$ORACLE_HOME/opmn/bin/opmnctl startproc ias-component=OC4J process-type=OC4J_
imeeting
$ORACLE_HOME/imeeting/bin/rtcctl start
```

Connectivity Issues Appear in Diagnostic Reports

The **Monitor** tab lets you monitor the current status of Web conferences. The **Reports** tab lets you view details about completed conferences. Under both tabs, you can select a conference, choose **Conference Details**, then **Diagnostics** to view diagnostic information in the log file.

You may see messages about connection problems in these diagnostic logs.

- `IOReader Failed`: There was a problem with a Web Conferencing client connection. For example, this message might appear if a client joins a conference and then unplugs the network cable from his computer.

- `info:aborted`: The client's connection was dropped and the underlying network layer reported the connection.

- `info:timed_out`: The connection appears to be live, but no data can go through, so the Web Conferencing Server has closed the connection and expects the client to reconnect.

Network problems are sometimes unavoidable, due to overloaded routers, oversaturated networks, and so forth. The Oracle Real-Time Collaboration system, however, can usually recover from most connectivity issues caused by these problems. If connectivity is lost, the Web Conferencing client tries to reconnect to the server for as long as it takes to reestablish the connection.

If you see messages such as those listed, it is a good idea to keep monitoring the network infrastructure to make sure that network problems are not being caused by a router interrupting conferencing servers, or hardware issues such as disconnected network cables.

General Diagnostic Test Issues

The Oracle Real-Time Collaboration system provides several diagnostic tests for monitoring component service availability. Chapter 5, "Monitoring Oracle Real-Time Collaboration Processes" describes all of these tests and how to respond to error messages from them. For details about specific components, see any of the following sections:

- "Database Connectivity" on page 5-3

- "Web Conferencing Service Availability" on page 5-4

- "Oracle Messenger Service Availability" on page 5-4

- "Voice Conversion Service Availability" on page 5-5

- "Document Conversion Service Availability" on page 5-3

Issues with Oracle Real-Time Collaboration Web Pages

This section describes how to resolve issues with the Oracle Real-Time Collaboration Web Client pages.

- Meeting Host Cannot Find a Schedule Tab

- Users Cannot Upload Documents to the Materials Repository

Meeting Host Cannot Find a Schedule Tab

Users typically schedule conferences by clicking the **Schedule** tab on the Oracle Real-Time Collaboration Web Client pages. However, if your company uses both Oracle Web Conferencing and Oracle Calendar, you may require that users schedule conferences solely through Oracle Calendar, so all meetings are managed there. (Web conferences scheduled through the **Schedule** tab do not appear in Oracle Calendar; Web conferences scheduled through Oracle Calendar appear in both systems.) To prevent users from using the **Schedule** tab, suppress display of the tab by setting the IsCalendarOCSInstalled property.

If hosts cannot see the **Schedule** tab, then the property has most likely been set to *true*. If you do not use Oracle Calendar or want to allow hosts to schedule conferences

through the Oracle Real-Time Collaboration Web Client, outside of Oracle Calendar, set the property to *false*. See "Suppressing the Schedule Tab if Oracle Calendar is Used" on page 3-33 for details.

> **Note:** If you allow hosts to use the **Schedule** tab to create or cancel Web conferences, remember that these conferences will *not* appear in Oracle Calendar. If you want to manage all conferences through the calendar, you should suppress the **Schedule** tab.

Users Cannot Upload Documents to the Materials Repository

The Document Conversion Server is required in order to upload files (such as Microsoft Word or PowerPoint files) using the **Materials** tab. If users are not able to load files, check to make sure the Document Conversion Server was installed and is running.

- Run the docconv test as described in "Document Conversion Service Availability" on page 5-3.

- If the Document Conversion Server was not installed, see the *Oracle Collaboration Suite Installation Guide* for your platform.

Troubleshooting Oracle Web Conferencing Issues

The following sections describe how to solve Web Conferencing difficulties caused by administrative issues.

- Hosts or Attendees Cannot Access Features

- Users Cannot Dial Out for Voice Streaming

- Conferences Scheduled in Oracle Calendar Do Not Appear in Oracle Web Conferencing

- Conferences Scheduled in Oracle Web Conferencing Do Not Appear in Oracle Calendar

- Text Files with Multibyte Characters or non-ASCII Characters Do Not Display Properly

Hosts or Attendees Cannot Access Features

If meeting hosts or attendees have problems with Web conference privileges or features that they cannot access, check whether any properties have been set to prevent access to features. To display current system properties, enter the following on your Web Conferencing Server:

```
$ORACLE_HOME/imeeting/bin/rtcctl getProperties
```

See Chapter 4 for more details about the getProperties command.

Users Cannot Dial Out for Voice Streaming

If users cannot dial out to a phone number for voice streaming, you may need to set up the dial-in prefix for calls made to numbers outside your company site. For example, many company phone systems require users to dial 9 before dialing an outside line. To set up the prefix, set the `VoiceDialInPrefix` property using rtcctl:

```
$ORACLE_HOME/imeeting/bin/rtcctl setProperty -i instance_name -pname
"VoiceDialinPrefix" -pvalue "9"
```

See "Setting Up Voice Conversion Servers for Oracle Real-Time Collaboration" on page 2-4 for more details.

Conferences Scheduled in Oracle Calendar Do Not Appear in Oracle Web Conferencing

If you use Oracle Calendar and Oracle Web Conferencing, when users schedule Web conferences in Oracle Calendar, those conferences will appear in the **Scheduled Conferences** tab.

If a user scheduled a Web conference in Oracle Calendar, but that conference does not appear in the Oracle Web Conferencing Web Client pages, then check whether a conference ID appears for the conference in Oracle Calendar.

If the conference ID shows as "pending," then the conference was not created in Oracle Web Conferencing. This can happen if the GuestUserAccessEnabled property in Oracle Real-Time Collaboration is set to *false*, to prevent **nonregistered user**s from participating in conferences, but the allowguestusers parameter in Oracle Calendar is set to *true*. If allowguestusers is true, then Oracle Calendar will allow users to invite nonregistered users to a Web conference. But Oracle Web Conferencing will reject the conference proposal and will not create a conference ID.

See "Preventing Guest User Access" on page 3-19 for details about setting the GuestUserAccessEnabled property. See Chapter 3, "Calendar Server Parameters" of *Oracle Calendar Reference Manual* for details about setting the allowguestusers parameter.

Conferences Scheduled in Oracle Web Conferencing Do Not Appear in Oracle Calendar

If you use Oracle Calendar and Oracle Web Conferencing, when users schedule Web conferences in Calendar, those conferences will appear in the **Scheduled Conferences** tab. However, conferences scheduled using the Oracle Real-Time Collaboration Web Client are not recorded by Oracle Calendar.

If you want to require that all conferences, including Web conferences, are scheduled using Oracle Calendar, then you should suppress display of the **Schedule** tab so that users cannot schedule conferences through the Oracle Real-Time Collaboration Web Client.

See "Suppressing the Schedule Tab if Oracle Calendar is Used" on page 3-33 for details.

Text Files with Multibyte Characters or non-ASCII Characters Do Not Display Properly

If users upload plain text documents into the **Materials** repository that contain multibyte strings (for languages such as Japanese or Arabic, for example) or non-ASCII characters (for languages such as Russian), the documents may appear garbled when displayed during a Web conference. The Document Conversion Server supports only UTF-8 encoded plain text files.

If users upload HTML files with other encodings, the Document Conversion Server can display them correctly as long as the HTML file includes an appropriate statement for the encoding in the <META> tag. For example, a document with Japanese encoding might include the following HTML statement:

```
<META http-equiv="Content-Type" content="text/html; charset=Shift_JIS">
```

Administrators should also ensure that users have their browsers set to "auto select" the language encoding from the document, rather than forcing a particular encoding such as "Western European (ISO).

Users Outside the Corporate Firewall Cannot Join or Start Meetings

If users outside the corporate firewall cannot join or start meetings, make sure that Oracle Real-Time Collaboration is open for SSL connections from outside the intranet. Follow the steps described in "Setting Up an Oracle Real-Time Collaboration SSL Listening Point" on page 2-2.

Troubleshooting Oracle Messenger Issues

The following sections answer questions about issues when starting or using Oracle Messenger caused by administrative problems.

- Users Cannot Sign In to the Oracle Messenger Server
- Users Cannot Create or Join Chat Conferences
- Third-Party Clients Cannot Connect to the Server for Messaging

Users Cannot Sign In to the Oracle Messenger Server

If users cannot sign in to Oracle Messenger from the Oracle Messenger window, follow the next steps.

1. Verify that the users are appending the @ domain name to their usernames.

2. Check whether users can log in to the Oracle Real-Time Collaboration Web Client pages. If they cannot, see "Issues with User IDs and While Logging In" on page A-2 for solutions.

3. Check whether the imtest for Oracle Messenger passes, by using `rtcctl runTests -testlist imtest`, or by viewing the Status report under the **System** tab.

   If the imtest fails, see "Oracle Messenger Service Availability" on page 5-4.

4. Make certain that their connection settings match those expected by your system. Have users choose **Tools**, then **Options**, then **Connection**. Make sure the **Automatic Configuration for RTC Connection** option is checked on.

   This option should be set on by default. The additional settings for the option control connections to a servlet that manages how connection attempts are made. The HTTP and HTTPS options and the server and port number options are those used to connect with the servlet, and will be populated automatically at installation. Users should not change these options.

Users Cannot Create or Join Chat Conferences

If users cannot start a new chat conference or join an existing chat conference from the Oracle Messenger or Chat Conferencing windows, first check that the imtest passed, as described in "Users Cannot Sign In to the Oracle Messenger Server" on page A-7.

If the imtest passes, then the Oracle Presence Server may need to be restarted as follows:

1. Inform all users that you must stop and restart the chat conferencing component, and that any running chat conferences will be ended during this process.

2. Enter the following command on the Applications tier where you installed Oracle Real-Time Collaboration:

```
$ORACLE_HOME/imeeting/bin/rtcctl
rtcctl> stop -cname rtc-imrtr
rtcctl> start -cname rtc-imrtr
```

The Oracle Presence Server is stopped and restarted. Users should now be able to create new chat conferences and join existing conferences.

Third-Party Clients Cannot Connect to the Server for Messaging

Some users, such as those using LINUX or UNIX systems, may use third-party XMPP clients such as Gaim to exchange instant messages with Oracle Messenger users. Third-party clients can only connect to Oracle Messenger using direct XMPP or XMPPS connections.

If you have disabled direct connections by setting the IMXMPPDirectConnEnabled to *false*, then third-party clients cannot connect with the Oracle Presence Server to exchange messages with Oracle Messenger users. To allow third-party connections, you must set this property to *true*.

If you allow direct connections to XMPP/XMPPS, and you have required XMPPS connections, make sure that the third-party client users have set their clients to connect through XMPPS, on port 5223. For example, Gaim client users would choose the following in the Modify Account dialog:

- Force old SSL: On (checked)
- Allow plaintext auth over unencrypted streams: Off (unchecked)
- Port: 5223

B

Oracle Real-Time Collaboration Time Zones

Table B–1 contains a list of time zones supported by Oracle Real-Time Collaboration. See "Configuring Time Zones" on page 3-55 for details about setting the default time zone for a Oracle Real-Time Collaboration system.

Table B–1   Oracle Real-Time Collaboration Time Zones

Internal Name	External User Visible Name
Pacific/Pago_Pago	(-11:00) Pago Pago
Pacific/Honolulu	(-10:00) Hawaii
America/Anchorage	(-09:00) Alaska
America/Vancouver	(-08:00) Canada Pacific Time
America/Los_Angeles	(-08:00) US Pacific Time
America/Tijuana	(-08:00) Tijuana
America/Edmonton	(-07:00) Canada Mountain Time
America/Denver	(-07:00) US Mountain Time
America/Phoenix	(-07:00) Arizona
America/Mazatlan	(-07:00) Mazatlan
America/Winnipeg	(-06:00) Canada Central Time
America/Regina	(-06:00) Saskatchewan
America/Chicago	(-06:00) US Central Time
America/Mexico_City	(-06:00) Mexico City
America/Guatemala	(-06:00) Guatemala
America/El_Salvador	(-06:00) El Salvador
America/Managua	(-06:00) Managua
America/Costa_Rica	(-06:00) Costa Rica
America/Montreal	(-05:00) Canada Eastern Time
America/New_York	(-05:00) US Eastern Time
America/Indianapolis	(-05:00) East Indiana
America/Panama	(-05:00) Panama
America/Bogota	(-05:00) Bogota
America/Lima	(-05:00) Lima
America/Halifax	(-04:00) Canada Atlantic Time

Table B–1   (Cont.) Oracle Real-Time Collaboration Time Zones

Internal Name	External User Visible Name
America/Puerto_Rico	(-04:00) Puerto Rico
America/Caracas	(-04:00) Caracas
America/Santiago	(-04:00) Santiago
America/St_Johns	(-03:30) Newfoundland
America/Sao_Paulo	(-03:00) Sao Paulo
Atlantic/Azores	(-01:00) Azores
Etc./UTC	(00:00) Universal Time
UTC	(00:00) Universal Time
Atlantic/Reykjavik	(00:00) Reykjavik
Europe/Dublin	(00:00) Dublin
Europe/London	(00:00) London
Europe/Lisbon	(00:00) Lisbon
Africa/Casablanca	(00:00) Casablanca
Africa/Nouakchott	(00:00) Nouakchott
Europe/Oslo	(+01:00) Oslo
Europe/Stockholm	(+01:00) Stockholm
Europe/Copenhagen	(+01:00) Copenhagen
Europe/Berlin	(+01:00) Berlin
Europe/Amsterdam	(+01:00) Amsterdam
Europe/Brussels	(+01:00) Brussels
Europe/Luxembourg	(+01:00) Luxembourg
Europe/Paris	(+01:00) Paris
Europe/Zurich	(+01:00) Zurich
Europe/Madrid	(+01:00) Madrid
Europe/Rome	(+01:00) Rome
Africa/Algiers	(+01:00) Algiers
Africa/Tunis	(+01:00) Tunis
Europe/Warsaw	(+01:00) Warsaw
Europe/Prague	(+01:00) Prague Bratislava
Europe/Vienna	(+01:00) Vienna
Europe/Budapest	(+01:00) Budapest
Europe/Sofia	(+02:00) Sofia
Europe/Istanbul	(+02:00) Istanbul
Europe/Athens	(+02:00) Athens
Asia/Nicosia	(+02:00) Nicosia
Asia/Beirut	(+02:00) Beirut
Asia/Damascus	(+02:00) Damascus

Table B–1   (Cont.) Oracle Real-Time Collaboration Time Zones

Internal Name	External User Visible Name
Asia/Jerusalem	(+02:00) Jerusalem
Asia/Amman	(+02:00) Amman
Africa/Tripoli	(+02:00) Tripoli
Africa/Cairo	(+02:00) Cairo
Africa/Johannesburg	(+02:00) Johannesburg
Europe/Moscow	(+03:00) Moscow
Asia/Baghdad	(+03:00) Baghdad
Asia/Kuwait	(+03:00) Kuwait
Asia/Riyadh	(+03:00) Riyadh
Asia/Bahrain	(+03:00) Bahrain
Asia/Qatar	(+03:00) Qatar
Asia/Aden	(+03:00) Aden
Africa/Khartoum	(+03:00) Khartoum
Africa/Djibouti	(+03:00) Djibouti
Africa/Mogadishu	(+03:00) Mogadishu
Asia/Dubai	(+04:00) Dubai
Asia/Muscat	(+04:00) Muscat
Asia/Yekaterinburg	(+05:00) Yekaterinburg
Asia/Tashkent	(+05:00) Tashkent
Asia/Calcutta	(+05:30) India
Asia/Novosibirsk	(+06:00) Novosibirsk
Asia/Almaty	(+06:00) Almaty
Asia/Dacca	(+06:00) Dacca
Asia/Krasnoyarsk	(+07:00) Krasnoyarsk
Asia/Bangkok	(+07:00) Bangkok
Asia/Saigon	(+07:00) Vietnam
Asia/Jakarta	(+07:00) Jakarta
Asia/Irkutsk	(+08:00) Irkutsk
Asia/Shanghai	(+08:00) Beijing, Shanghai
Asia/Hong_Kong	(+08:00) Hong Kong
Asia/Taipei	(+08:00) Taipei
Asia/Kuala_Lumpur	(+08:00) Kuala Lumpur
Asia/Singapore	(+08:00) Singapore
Australia/Perth	(+08:00) Perth
Asia/Yakutsk	(+09:00) Yakutsk
Asia/Seoul	(+09:00) Seoul
Asia/Tokyo	(+09:00) Tokyo

Table B–1   (Cont.) Oracle Real-Time Collaboration Time Zones

Internal Name	External User Visible Name
Australia/Darwin	(+09:30) Darwin
Australia/Adelaide	(+09:30) Adelaide
Asia/Vladivostok	(+10:00) Vladivostok
Australia/Brisbane	(+10:00) Brisbane
Australia/Sydney	(+10:00) Sydney Canberra
Australia/Hobart	(+10:00) Hobart
Asia/Magadan	(+11:00) Magadan
Asia/Kamchatka	(+12:00) Kamchatka
Pacific/Auckland	(+12:00) Auckland

C

Oracle Real-Time Collaboration Log Files

Oracle Real-Time Collaboration provides the log files shown in Table C–1. All directories shown in this table are stored in the $ORACLE_HOME/imeeting/logs directory.

To view the log files interactively, log in to Oracle Messenger as a business administrator and choose **Logs** under the **System** tab. See "Oracle Real-Time Collaboration System Logs" on page 6-6 for more information about viewing the log Web pages.

Table C–1   Oracle Real-Time Collaboration Log File Directories

Directory Name	Contents
/application	Log files from the Oracle Real-Time Collaboration Web Client, supported by the OC4J_imeeting application. Top directory includes XML application log files with events not belonging to any user sessions.
/application/app_sessions	XML log files for user sessions running the Oracle Real-Time Collaboration Web Client, grouped by date (MM.DD.YYYY).
/application/site_logs/	XML log files for users running the Web Client on a particular site, grouped by date (MM.DD.YYYY).
/connmgr	Client Connection Manager log files (ASCII).
/imHaProcess	Log files for the High Availability process management for the Oracle Presence Server.
/imrtr	Log files for the Oracle Presence Server, including an XML log file, and ASCII log files for errors (imtr*.log), statistics (stats*.log), chat conferences (tc*.log), and JDS Directory Service calls (ds*.log).
/mx	Multiplexer log files (ASCII).
/rdtr	Redirector log files (ASCII).
/rtcctl	XML log files for rtcctl commands.
/rtcpm	Process Manager log files, including directories containing log files for each of the child processes managed by the Process Manager: confsvr (Oracle Web Conferencing Server), connmgr (Connection Manager), imrtr (Oracle Presence Server), mx (Multiplexer), rdtr (Redirector), and voiceproxy (Voice Proxy Server).
/servers	XML log files for Oracle Real-Time Collaboration server process events that do not belong to any meeting. Logs are grouped by date (MM.DD.YYYY).

Table C–1   (Cont.) Oracle Real-Time Collaboration Log File Directories

Directory Name	Contents
/sessions	XML log files for conference sessions, grouped by date (MM.DD.YYYY).
/voiceproxy	Voice Proxy Server log files (ASCII).

D

Oracle Real-Time Collaboration Database Accounts and Tablespaces

This appendix provides an overview of the Oracle Real-Time Collaboration database schema accounts and tablespaces. It contains the following sections:

- Oracle Real-Time Collaboration Database Schema Accounts
- Oracle Real-Time Collaboration Tablespace Accounts

Oracle Real-Time Collaboration Database Schema Accounts

Table D–1 lists the Oracle Real-Time Collaboration schema accounts.

Table D–1   Oracle Real-Time Collaboration Schema Accounts

Account Name	Content
RTC	All the tables and objects considered business data, including lookup and transaction database objects (tables, indexes, views, sequences, stored procedures and packages, and triggers) of the schema.
RTC_APP	The synonyms that refer to tables, views, and sequences in the RTC and RTC_REP accounts. This account has appropriate read/write access to the tables in the RTC and RTC_REP schemas.
RTC_IM	All the database objects for Oracle Messenger, including presence, statistics, messages, chat rooms, and so forth.
RTC_REP	All the database objects that deal with transient and reporting data for Oracle Real-Time Collaboration. This data is primarily used for reporting purposes and could either be calculated by transaction data from the RTC account, or used for monitoring.

Deleting User Data From the Oracle Real-Time Collaboration Database

If you want to reclaim disk space occupied by users who were deleted from the Oracle Internet Directory, you can optionally delete old users and their associated data from the Oracle Real-Time Collaboration repository using the delete_user.pl perl script located in the *$ORACLE_HOME*/imeeting/install/db directory. This script only deletes users who have already been deleted from the Oracle Internet Directory.

> **Warning:** Use this script with extreme caution. All archived conferences and message archives associated with the deleted users will be permanently deleted and cannot be recovered.

The `delete_user.pl` perl script is used as follows:

```
delete_user.pl -dbname dbname -rtc_app_user RTC_APP_DB_USER -rtc_app_password RTC_
APP_PASSWD [-user username]
```

where:

- *dbname* is the alias string taken from the *$ORACLE_
  HOME*/network/admin/tnsnames.ora file.

- *RTC_APP_DB_USER* is the name of the RTC_APP schema account.

- *RTC_APP_PASSWD* is the password for the RTC_APP schema account.

- [-user *username*] is optional and specifies the complete username of a specific
  user that you want to delete. The user's archived conferences and message
  archives will be permanently deleted. If this argument is not specified, all user
  data, including all archived conferences and message archives, will be
  permanently deleted for users who were deleted from the Oracle Internet
  Directory. Once deleted, this data cannot be recovered.

Oracle Real-Time Collaboration Tablespace Accounts

Table D–2 lists the tablespaces used by the RTC schema account.

Table D–2   Tablespaces for the RTC Schema Account

Tablespace	Content
RTC_ARCHIVE_DATA	Tables of archive and history data, such as history of conference documents, conference modes, chat history, and so forth.
RTC_ARCHIVE_INDEX	Indexes for RTC_ARCHIVE_DATA.
RTC_DOCUMENT_DATA	Tables used by the document management module, mostly partitioned, containing stored documents, polls, bookmarks, and messages. May contain large amounts of data.
RTC_DOCUMENT_INDEX	Indexes for RTC_DOCUMENT_DATA.
RTC_IM_DATA	Tables used by the Oracle Messenger module. May contain large amounts of data.
RTC_IM_INDEX	Indexes for RTC_IM_DATA.
RTC_LOOKUP_DATA	Tables that contain lookup and nontransactional data, such as administration properties, configuration components, menu rendering data, and so forth.
RTC_LOOKUP_INDEX	Indexes for RTC_LOOKUP_DATA.
RTC_RECORDING_DATA	Tables used by the recording management module, mostly partitioned, containing recordings. May contain large amounts of data.
RTC_RECORDING_INDEX	Indexes for RTC_RECORDING_DATA.
RTC_TRANSACTION_DATA	Tables of transaction data, mostly partitioned, regarding conferences, attendees, polls, and so forth. May contain large amounts of data.
RTC_TRANSACTION_INDEX	Indexes for RTC_TRANSACTION_DATA.

Table D–3 lists the tablespaces used by the RTC_REP schema account.

Table D–3   Tablespaces for the RTC_REP Schema Account

Tablespace	Content
RTC_TRANSIENT_DATA	Tables containing transient data used by real-time monitoring of the Oracle Real-Time Collaboration server process.
RTC_TRANSIENT_INDEX	Indexes for RTC_TRANSIENT_DATA.
RTC_TRANSIENT_LOB_DATA	Tables containing transient data for lines of business (sites), used by incident management and logging.
RTC_TRANSIENT_LOB_INDEX	Indexes for RTC_TRANSIENT_LOB_DATA.
RTC_REPORT_DATA	Materialized views aggregated on a daily, weekly, or monthly basis and used for reporting.
RTC_REPORT_INDEX	Indexes for RTC_REPORT_DATA.

There are no tablespaces for the RTC_APP account.

An additional tablespace, RTC_TEMP, is used by all Oracle Real-Time Collaboration schema accounts to hold temporary data.

Glossary

acting host

A person who has been given an acting host key for a conference. That person becomes the conference's effective host. The person who schedules the conference creates the acting host key.

actual value

The value for an Oracle Real-Time Collaboration as set for a specific scope: system, site, instance, or component using the `setProperty` command. See **effective value**.

anonymous attendee

Any user who joins a conference without logging in to Oracle Web Conferencing is considered anonymous, even if the user provides information such as first and last name.

archive

A record of a collaborative event. Web conference archives include data about attendees and events during the conference, conference recordings, and transcripts of chat sessions held during conferences. Oracle Messenger archives include transcripts of all chat messages, organized by contact.

attendee

A person who participates in a Web or chat conference. An attendee has access to fewer features than the host.

audience

A field controlling who may attend a Web conference. Depending on the type of audience, a Web conference may be more or less visible to various types of users. The audience types are:

- *all users* – Any user, either registered or nonregistered, may attend.

- *registered users* – Only users provisioned through the Oracle Internet Directory may attend.

- *registered users by invitation* – Only those users provisioned through the Oracle Internet Directory and specifically invited by the host may attend.

See also **registered user**, **nonregistered user**, and **visibility**.

broadcast message

A text-based message sent to selected contacts, a group, or several groups in Oracle Messenger. The sender may choose whether to allow contacts to respond to the sender (only) with individual chat messages.

business administrator

A **registered user** assigned the ability to start, stop, configure, and administer the system deployment. A business administrator can also perform the tasks of a **business monitor**.

business monitor

A **registered user** assigned the ability to review and monitor system performance, feedback, and historical data.

chat

A text-based or voice-based conversation between two Oracle Messenger users, or a text-based conversation between participants in a Web conference. See also **voice chat**.

chat conference

A text-based chat session in which multiple contacts are invited to participate in a single chat window.

chat transcript

The text of chat sessions, including those held during a Web conference or chat conference. Chat transcripts from Web conferences are part of the conference archive; chat transcripts from Oracle Messenger chat sessions and chat conferences can be viewed with the **View Message History** command in the Oracle Messenger window, or by choosing **View Messages** under the **Archive** tab.

chat types

Oracle Real-Time Collaboration provides two basic types of chat:

- *Oracle Messenger Chat* – Text-based chatting started from the Oracle Messenger window. Such chat includes individual chat sessions between two users, and chat conferences.

- *Oracle Web Conferencing Chat* – Text-based chatting that users and hosts can participate in during a Web conference. A Web conference offers the following three types of chat sessions:

  - *Chat with Host* – Attendees send the host instant messages that appear on the host's screen only. Other attendees cannot see conversations between the host and other attendees.

  - *Public Chat* – All attendees send chat messages to a public forum, and the messages are visible to all.

  - *Group Chat* – Two or more users send messages to each other privately.

Client Connection Manager

An Oracle Real-Time Collaboration core component that connects Oracle Messenger Windows or Java clients to the Oracle Presence Server. Its component name is rtc-connmgr.

cluster

A group of Oracle Real-Time Collaboration instances that have the same InstanceLocation property and that use the same Oracle Real-Time Collaboration Repository.

community

A collection of Oracle Messenger users that appear under the **Community** tab in the RTC Messenger window. See **group.**

component

A set of processes within an instance that perform an identical function, such as a multiplexer for handling communications between components. Each component has a component type and component name. See the *Oracle Real-Time Collaboration Administrator's Guide* for descriptions of components and how to administer them with the rtcctl utility.

conference ID

The unique ID that the Oracle Real-Time Collaboration system assigns to a chat conference or Web conference.

conference key

An additional text string that a Web conference host can assign to a conference. Attendees must enter the key before they can enter the conference.

conference mode

A method for sharing or displaying Web conference content. Each mode has a different appearance and has a set of features associated with it. Oracle Web Conferencing offers the following modes:

- **desktop sharing mode** – Share an application, an area of your desktop, your entire desktop, or a browser window.

- **document presentation mode** – Present documents and images.

- **whiteboard mode** – Draw on a whiteboard with a variety of drawing tools. Attendees see drawings on the whiteboard in real time.

console

See **Oracle Messenger console**, **Oracle Web Conferencing console**, and **Oracle Web Conferencing playback console.**

contact

A business colleague with whom you exchange chat messages or participate in Web conferences. Your contacts are displayed in the Oracle Messenger window.

core components

The main components of Oracle Real-Time Collaboration: **Client Connection Manager**, **OC4J_imeeting**, **Oracle Real-Time Collaboration Presence Server**, **Multiplexer**, **Redirector**, **Oracle Web Conferencing Server**, **Process Manager**, and **Voice Proxy Server**. All of these components are installed when Oracle Real-Time Collaboration is installed.

Data Services

See **Oracle Real-Time Collaboration Data Services.**

desktop sharing mode

One of the modes used during a Web conference. This mode lets a host share an application, an area of the desktop, the entire desktop, or a Web browser.

DMZ

The "demilitarized zone" is a subnetwork located between a company's corporate intranet and the Internet.

Document Conversion Server

The server that converts supported document types to HTML for viewing in document presentation mode. Its component name is rtc-docconv.

document presentation mode

One of the modes used during a Web conference. This mode is optimized for presenting Microsoft Office documents and *.txt, *.jpg, and *.gif files. The host and presenters can use a slide-show type of navigation, index, and thumbnails. Documents must first be placed in the user's **personal materials repository** before they can be shared in this mode.

effective value

The value for an Oracle Real-Time Collaboration property as used by the system at runtime, based on the property as set by the administrator and by users through various **Preferences** dialogs, and based on the inheritance order (system, site, instance, component) and whether the property value has been forced with the `-force` option. See **actual value**.

end page

The Web page or exit poll that attendees are automatically directed to when they exit the conference.

end user

A **registered user** who can perform all typical tasks with Oracle Real-Time Collaboration, including scheduling conferences, downloading the Oracle Messenger, Oracle Web Conferencing, and Oracle Real-Time Collaboration Add-In for Microsoft Office consoles, uploading materials for conferences, joining conferences, and viewing conference and instant message archives. See **business administrator** and **business monitor**.

enrollable conference

A conference that requires users to complete an enrollment form, listing their name, company, address, phone, and e-mail address before they can participate in the conference. Such conferences are typically created for web seminars, sales meetings, or other conferences that include **nonregistered user**s whose personal information the host wishes to track.

force

An option of the `setProperty` command that requires that a property setting is inherited by all subsequent property **scope**s. For example, you can force the value of a property set on the system so that all sites and instances under that system use that value as well. See **properties** and **rtcctl**.

group

In the Oracle Messenger window, groups consist of contacts that have been organized by the user under the Contacts tab, or groups of individuals listed as a **community** under the Community tab. Administrators can also create special groups through the rtcctl utility for use with **group presence services** to respond to requests made through Oracle Real-Time Collaboration integration services.

group chat

See **chat types**.

group presence

Group presence is used to identify the availability of a group of users created by an administrator to respond to requests made through Oracle Real-Time Collaboration integration services.

group presence services

Oracle Real-Time Collaboration integration services that allow multiple users to interact with a group of specialized contacts, and members of that group to interact with each other. For example, a group might be created to provide a single logical entry point for customer service questions, distributing a **queued chat** message to any member who picks up the communication. Such groups must be created by the administrator using the rtcctl utility.

guest chat user

A user outside of the Oracle Internet Directory enabled to make chat requests to Oracle Messenger through an Oracle Real-Time Collaboration integrated service.

host

A person who initiates a Web or chat conference. The host can grant control of a Web conference to a presenter.

When a host exits a conference, the conference ends if the host does not assign the host role to an attendee before leaving the conference.

instance

A group of Oracle Real-Time Collaboration components installed on the same computer.

instant conference

A conference a user begins to host immediately after creating it. Instant conferences are ideal for users who decide to collaborate but who have not planned the conference in advance.

Users must be registered with Oracle Web Conferencing in order to create instant conferences. Attendees, however, do not need to be registered users. Attendees can enter a conference through the Join Conference window. All instant conferences are regular conferences by default.

integration services

See **Oracle Real-Time Collaboration Integration Services**.

JID

Jabber Identifier. An identification string made up of a domain, node, and resource name to express ownership or routing information to the Oracle Presence Server. A JID

uses the following format: `user@host/resource` or
`[node@]domain[/resource]`.

load balancer

A very fast network device that can distribute Web requests to a large number of physical servers. The purpose of a load balancer is to provide a single published address to the client browsers, and, in the case of Oracle Real-Time Collaboration, provide multiple Oracle Real-Time Collaboration core components Applications tiers to service the requests, based on the distribution of the requests done by the load balancer.

materials quota

The percentage of used space in your **personal materials repository**.

message logs

The records of instant messages you have sent to and received from other Oracle Messenger users.

mod_imeeting

A plug-in to the Oracle HTTP Server that helps pass requests from the Web Conferencing clients to the Web Conferencing Server.

moderator

The owner of a chat conference room.

Multiplexer

An Oracle Real-Time Collaboration core component that accepts inbound connections from Oracle Web Conferencing clients and Oracle Web Conferencing Servers and routes data traffic between them. Acts as a communication hub for Web conferencing components. Its component name is rtc-mx.

nonregistered user

A user who is not a member of the Oracle Internet Directory, who has been invited to a Web conference or has entered a chat session though a Web page using Oracle Real-Time Collaboration integration services to Oracle Messenger. See **registered user**.

OC4J_imeeting

An Oracle Real-Time Collaboration core component, the Oracle Real-Time Collaboration J2EE Application running in the Oracle10*g*AS Containers for J2EE. It provides the Web Client used to schedule conferences and manage Oracle Real-Time Collaboration functions, interfaces with Oracle Internet Directory for user management, and provides integration with other Oracle Collaboration Suite applications such as Oracle Calendar. Its component name is ocs4j_imeeting.

Oracle Real-Time Collaboration

Oracle Real-Time Collaboration lets individuals and groups detect and display their **presence**, meet, communicate, and collaborate in a seamless and unified manner.

Oracle Real-Time Collaboration Communication Services

Services that enable system communications such as Secure Sockets-Layer (SSL) connections, firewall traversal, and multiplexer processing of multiple conference connections.

Oracle Real-Time Collaboration Data Services

Services that support the transfer of Oracle Web Conferencing and chat data.

Oracle Real-Time Collaboration Group Services

Services that let multiple users interact with a group of contacts, and members of the group interact with each other.

Oracle Real-Time Collaboration Integration Services

A set of interfaces that can be used to tightly integrate any application to the functionality provided by the Oracle Real-Time Collaboration system. Integrators can create applications customized for the entire enterprise or for any business application (for example sales, training, customer support) within the enterprise.

Oracle Messenger

Lets users send and receive instant messages, start or join chat conferences, manage contacts, and declare their presence or detect the presence of contacts on the network. Oracle Messenger is available in a native client on Windows.

Oracle Messenger console

A client that provides the interface to all Oracle Messenger features.

Oracle Real-Time Collaboration Presence Server

A server that supports the declaration and detection of individual and group presence, and provides the services required for instant messaging, chat conferences. Its component name is rtc_imrtr.

Oracle Real-Time Collaboration Server

The Oracle Real-Time Collaboration Server consists of the following: **Oracle Real-Time Collaboration Communication Services**, **Oracle Real-Time Collaboration Data Services**, **Oracle Real-Time Collaboration Group Services**, **Oracle Real-Time Collaboration Integration Services**, **Oracle Real-Time Collaboration Presence Server**, **Oracle Real-Time Collaboration System Services**, **Oracle Real-Time Collaboration Voice Services**, **Oracle Real-Time Collaboration Web Client,** and **Oracle Web Conferencing Server**.

Oracle Real-Time Collaboration System Services

Services that provide administrative features such as system management through properties, statistics reporting, and process monitoring.

Oracle Real-Time Collaboration Voice Services

Services that enable voice streaming in Web or chat conferences, full-duplex Voice over IP (VoIP), and **pass-the-mic voice streaming**.

Oracle Real-Time Collaboration Web Client

A Web-based user interface that lets users and administrators download Oracle Web Conferencing and Oracle Messenger clients, schedule and join conferences, manage conference materials, view and manage conference and message archives and reports, and monitor the Oracle Real-Time Collaboration system.

Oracle Web Conferencing

Lets users meet and collaborate in real-time, including sharing documents and desktops, using an electronic whiteboard, streaming voice data, polling participants, chatting with participants, and recording conferences

Oracle Web Conferencing console

A client that provides the interface to Oracle Web Conferencing capabilities.

Oracle Web Conferencing playback console

The interface used to play back a recording of a Web conference. Users can play all or part of the conference, or jump to a particular portion of the conference.

Oracle Web Conferencing Server

A backend server that enables real-time Web conferencing, including intelligently distributing real-time data, managing conference attendees' states, and providing services for recording and archiving conferences. Clients never directly communicate with the Web Conferencing Server. Instead, clients communicate with the HTTP Listener, which uses **mod_imeeting** to communicate with the appropriate Web Conferencing Server. It is one of the core components of the system, and its component name is rtc-confsvr.

pass-the-mic voice streaming

One-way broadcast of voice data in a Web conference, in which the individual broadcasting voice data can pass his broadcasting privilege to a different presenter during the conference. Only one attendee can broadcast voice data at a time.

personal materials repository

Where you store files, messages, and polls to share with invitees before, after, or during a conference. You must be logged in to Oracle Web Conferencing to access your personal materials repository.

poll

A question that a host or presenter can distribute to attendees during a Web conference.

presence

The current availability of a contact, displayed in the Oracle Messenger window. A contact can be "available" to receive chat messages or invitations to Web conferences, or "away." Contacts can customize their presence categories. See also **group presence.**

Presence Server

See **Oracle Real-Time Collaboration Presence Server.**

Process Manager

An Oracle Real-Time Collaboration core component that watches all the other Oracle Real-Time Collaboration processes (except for OC4J_imeeting processes), and provides high availability by restarting processes if they are down. This process itself is monitored by the Oracle Process Management and Notification system. The component name is rtcpm.

properties

Oracle Real-Time Collaboration properties are used to configure many parts of the system, including system connectivity information, security levels, reports, Web Client pages, Web conferencing console characteristics, and user privileges. Administrators set properties with the **rtcctl** utility.

public chat

See **chat types.**

public conference

A completed conference that a host has published on the Archived Public Conferences table. Public conference records can be viewed by registered and nonregistered users, whether or not they are logged in. See **published conference.**

published conference

A completed conference that a host has made available to the conference attendees on the Attended Conferences tables. A host can choose to make only overview information about the conference available, or to publish access to recordings, public chat messages exchanged during the conference, the attendee list, and so forth. To publish a conference, a host clicks **Update** from the conference record in the My Archived Conferences list.

queued chat

Using **group presence services**, a group can be set up to receive chat messages in a special group chat queue. Members of the group can monitor questions and responses to the group. This type of chat is typically set up to support group communications with internal users or an external **guest chat user** for answering support questions or responding to sales inquiries.

rating

A conference host's response to the Web conference exit poll. When exiting a Web conference, the host is asked to rate Oracle Web Conferencing. Choices are Excellent, Good, or Poor.

Redirector

An Oracle Real-Time Collaboration core component that redirects the accepted connections to the Oracle Real-Time Collaboration communication processes (the **Multiplexer** for Web conferences or the **Client Connection Manager** for chat sessions) and load balances between them. Its component name is rtc-rdtr.

registered user

An Oracle Real-Time Collaboration user who is provisioned through the Oracle Internet Directory. Registered users can perform all basic tasks with Oracle Real-Time Collaboration, including scheduling conferences, starting instant conferences, downloading conference materials, viewing conference and message archives, downloading the Oracle Messenger client, sending and receiving instant messages, and viewing and publishing presence. See **nonregistered user.**

repository

See **personal materials repository.**

resource

Part of a **JID**. Provides additional information about how a user is accessing the Oracle Presence Server. A resource can be the location from which a user is connecting (for example, home or work), the type of device a user is connecting with (for example, notebook or handheld), or the user's specific client (for example, Windows or Java).

roles

Oracle Real-Time Collaboration roles control what tasks users can perform with the system. See **business administrator**, **business monitor**, and **end user.**

rtcctl

A command-line interface for administering and configuring the Oracle Real-Time Collaboration system. The utility supports a variety of commands to let you start and stop Oracle Real-Time Collaboration processes, view their current state, and configure your Oracle Real-Time Collaboration system.

scope

The portion of the Oracle Real-Time Collaboration system that a property affects. Properties can be set on a system, site, component, and instance level.

site

A logical site on the Oracle Real-Time Collaboration platform, used to enable line-of-business customization of Oracle Real-Time Collaboration features. Administrators can customize Web conference properties or create custom reports for a site.

site business administrator

A **registered user** assigned the ability to start, stop, configure, and administer the deployment of a site. A site business administrator can also perform the tasks of a **site business monitor**.

site business monitor

A **registered user** assigned the ability to review and monitor system performance, feedback, and historical data for a site.

start page

The Web page attendees see from the moment they enter the conference to the moment the host joins the conference. If the host does not specify a conference start URL, attendees see the Oracle Web Conferencing splash page upon entering.

visibility

The ability of users to see scheduled Web conferences in the Upcoming Conferences listing, either before or after the user has logged in.

A conference open to all users and set to be visible may be seen in the Upcoming Conferences listing no matter whether a user is logged in to the Oracle Real-Time Collaboration Web Client pages or not.

A conference open to registered users and set to be visible may be seen in the Upcoming Conferences listing only by registered users after logging in.

See also **audience**, **registered user**, and **nonregistered user**.

voice chat

Two-way voice communication held during a chat session between two users, started during a Web conference or from RTC Messenger.

Voice Conversion Server

The server that enables listen-only voice streaming when using a PSTN phone line. It captures the voice signal from a phone and converts it to digital format, used to stream voice communications during Web and chat conferences, instant messages, and conference playback. Its component name is rtc-voiceconv.

Voice Proxy Server

An Oracle Real-Time Collaboration core component that handles real-time, two-way voice communications during voice chat sessions in Oracle Messenger, and during voice chats with PC microphone in Oracle Web Conferencing. It interacts directly with the Oracle Messenger client. Its component name is rtc-voiceproxy.

Voice Services

See **Oracle Real-Time Collaboration Voice Services**.

voice streaming

One-way broadcast of voice data in a Web conference. Includes **pass-the-mic voice streaming** capability.

whiteboard mode

One of the modes used during a Web conference. In this mode, the host or presenter can draw on a whiteboard with a variety of drawing tools. Attendees see drawings on the whiteboard in real time.

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